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# *CANADA*

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# *YEAR BOOK*

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# *1988*

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*120th Anniversary*

Canada



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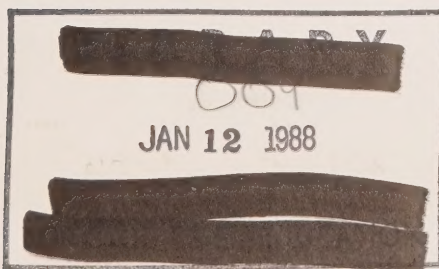


# CANADA YEAR BOOK 1988

120th Anniversary

A review of economic, social and political  
developments in Canada

Published by authority  
of the Minister of Supply and Services





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## PREFACE

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In 1867, the editors of the first *Year-Book and Almanac of British North America* opened the preface to the first edition with these words:

"In view of the approaching Confederation of the British Provinces in North America, and the prospect of their extending their commercial relations with each other and with foreign parts, a hand-book of common information respecting them seems to be required — a want which the publishers of the *Year-Book* endeavour to supply."

More than a century later, the *1988 Canada Year Book* continues this tradition, recording the economic, social and political life of Canada.

Like its predecessors, the *1988 Canada Year Book* brings together in a single volume a wealth of information from various sources to provide a composite portrait of Canada in all its diversity and richness. Over the years, it has become the standard statistical reference source on Canada, widely consulted by librarians, parliamentarians, teachers, diplomats, journalists and others.

To mark the 120th anniversary of the *Year Book*, the 1988 edition features, at the beginning of each chapter, interesting facts and figures drawn from *Year Books* published since Confederation. This edition also includes the latest data from the 1986 Census, and an improved and expanded list of federal government departments and agencies.

The content for the *Year Book* is drawn from over 300 contributors, making it impossible to acknowledge each individually. Nevertheless, our gratitude to each remains, as does our gratitude to the Canadian public for responding to the surveys and providing the data that are the foundation of this nation's statistical system.

As were the publishers of the first edition of the *Year-Book*, we are . . .

"witnesses of the extreme care taken to ensure accuracy, and believing the contents of the *Year-Book* to be of general usefulness, feel sanguine that the work will meet with public favour."

Ivan P. Fellegi  
Chief Statistician of Canada  
Ottawa

November 1987



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# METRIC CONVERSION

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In view of the degree of metric conversion in Canada almost all quantities in this edition of the *Canada Year Book* appear only in SI metric or in neutral units such as dollars or dozens.

Following are conversion factors for units used in the present edition and some others in common use. Conversions are from SI metric to traditional units. The same number of significant digits is used in these conversion factors as in the *Canadian Metric Practice Guide*. If users do not need this level of accuracy, they can round off figures at any number of digits, either in the calculations or in the results. It is a requirement in SI metric to use spaces instead of commas to separate groups of three digits; a space is optional with a four-digit number. Although this practice is not imperative with neutral units, it is taking place in many cases now and will undoubtedly come about generally through standardization. In all Statistics Canada publications, a period is used as a decimal marker.

## Relative weights and measures: SI Metric, Canadian Imperial and United States units

<b>Area</b>	
1 km <sup>2</sup> (square kilometre)	= 0.3861022 square miles
1 ha (hectare)	= 2.471054 acres
	= 10 000 m <sup>2</sup>
100 ha	= 1 km <sup>2</sup>
<b>Length</b>	
1 m (metre)	= 39.37 inches
	= 3.281 feet
	= 1.094 yards
1 km (kilometre)	= 0.6213712 statute miles = 3,280.840 feet
	= 0.5399568 nautical miles = 3,282.937 feet
<b>Volume and capacity</b>	
1 dm <sup>3</sup> (cubic decimetre)	= 0.0353147 cubic feet
	= 0.4237760 board feet (for lumber)
	= 0.0274962 bushels (for grain)
	= 1 L (litre) (for liquids or, in some cases, for fine solids which pour)
	= 0.2199693 Canadian gallons
	= 35.1951 fluid ounces
	= 0.8798774 quarts
	= 1.75975 pints
	= 0.264172 US gallons
	= 1.05669 US quarts
	= 2.11338 US pints
1 imperial proof gallon	= 1.36 US proof gallons
1 m <sup>3</sup> (cubic metre)	= 6.289811 barrels (petroleum or other liquid)
	= 0.3531466 register tons (in shipping)*
	= 35.31466 cubic feet
	= 1 000 dm <sup>3</sup>



**Mass (weight)**

1 g (gram)	=	0.03527396 ounces (avoirdupois)
	=	0.03215075 ounces (troy or apothecary)
1 kg (kilogram)	=	2.20462262 pounds (avoirdupois)
1 t (metric tonne)	=	1.10231131 tons (short)
	=	0.98420653 tons (long)

(For register ton, see Volume and capacity, and footnote \*)

**Length and mass**

1 t.km (tonne kilometre)	=	0.6849446 short ton miles
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**Volume and mass**

1 m<sup>3</sup> of water weighs 1 tonne

**Temperature**

Fahrenheit temperature	=	1.8 (Celsius temperature) + 32
Celsius temperature	=	5/9 (Fahrenheit temperature - 32)
At sea level water freezes at 0°C (32°F) and boils at 100°C (212°F)		

The following weights and measures are used in connection with the principal field crops and fruits:

Crops	Pounds per bushel	Kilograms per bushel	Bushels per 1 000 kg (1 t)
Wheat, potatoes and peas	60	27.215 5	36.7437
Wheat flour	43.48	19.721 4	50.7063
Oats	34	15.422 1	64.8418
Barley and buckwheat	48	21.772 4	45.9296
Rye, flaxseed and corn	56	25.401 2	39.3682
Mixed grains	45	20.411 7	48.9916
Rapeseed, mustard seed, pears, plums, cherries, peaches and apricots	50	22.679 6	44.0925
Sunflower seed	24	10.886 2	91.8593
Apples	42	19.050 9	52.4910
Strawberries and raspberries 1 kg	=	1.47 quarts in BC	
	=	1.76 quarts in all other provinces	

To produce 100 kg of flour it takes 138 kg of wheat.

\*Gross register tonnage of a ship, as used by Lloyd's Register of Shipping, is a measurement of the total capacity of the ship and is not a measure of weight. Net register tonnage equals gross register tonnage minus space used for accommodation, machinery, engine area and fuel storage, and so states the cargo-carrying ability of the ship.

CHAPTER 1

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# PHYSICAL SETTING



# CHAPTER 1

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## PHYSICAL SETTING

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## THEN

"Hudson Bay . . . becomes a central point from which Canada stretches its huge extent in every direction. To the south and south-east lies the great woodland region comprising the Provinces of Prince Edward Island, Nova Scotia, New Brunswick, Quebec and Ontario. In this region for a couple of centuries the forests have been attacked by armies of lumber-men hewing down the trees for export and for home uses or clearing the ground for agricultural pursuits". (1895)

In 1895, it was estimated that Canada covered 1/15th of the world's area, and that its population was 1/300th of that of the world. (1895)

"There is probably more misconception about the climate of Canada generally than about that of any other known country, the idea still prevailing among large numbers in Europe and elsewhere that the land is one of perpetual winter and usually covered with snow. In reality the climate of Canada is dry, healthy and invigorating . . ." (1891)



## NOW

The highest point in Canada is Mount Logan (5 951 m) in the Southwest Yukon mountain range.

In the Northwest Territories, winter nights and summer days are long, reaching a maximum of 24 hours.

The Great Lakes are among the largest freshwater bodies in the world. Their area is almost 250 000 km<sup>2</sup>, of which 36% is in Canada and 64% in the United States.

## CHAPTER 1

# PHYSICAL SETTING

### 1.1 Dimensions

Canada is the largest country in the Western Hemisphere and second largest in the world. Its territory is diverse, ranging from wide fertile prairies and farmlands, great areas of mountains, rocks and lakes to northern wilderness and Arctic tundra. The greatest north-south distance is from Cape Columbia on Ellesmere Island to Middle Island in Lake Erie, 4 634 km. The greatest east-west distance is from Cape Spear, Nfld. to the Yukon-Alaska border, 5 514 km.

Although the area is recorded as 9 970 610 km<sup>2</sup> for land and freshwater, Canada also encompasses the Canadian continental margin. The offshore areas of the margin, including Hudson Bay, cover over 6.5 million square kilometres, an area equivalent to over 60% of Canada's total onshore area.

#### 1.1.1 Regional geography

Politically, Canada is divided into 10 provinces and two territories. Each province administers its own natural resources. The resources (except for game) of Yukon and Northwest Territories are administered by the federal government, because of the extent and remoteness of the territories and their sparse population. Land and freshwater areas of the provinces and territories are given in Table 1.1. Throughout the *Canada Year Book* the provinces are listed from east to west, followed by the territories.

**Newfoundland** is Canada's most easterly province. The larger part, Labrador, borders the North Atlantic Coast to Hudson Strait and extends inland about 750 km toward its southern end. The surface is mostly a barren mosaic of rocks, swamps and lakes; its rugged coastline has promontories rising directly from the sea. The extreme northern area is dominated by the Torngat Mountains, rising to 1 620 m. Labrador has a rigorous climate and is snow-covered for more than half the year. Many of its river valleys are well forested. Rivers have numerous falls suitable for hydro development, such as Churchill Falls. Coastal waters abound in fish. The Precambrian rocks have mineral potential; iron ore is Labrador's greatest source of wealth.

The Island of Newfoundland is also rugged. The Long Range Mountains parallel the western coast and rise to heights of over 800 m. Old, worn-down fold-ridges have axes trending northeast to southwest. Much of the surface is barren and rocky and has innumerable ponds and swamps, the drainage having been deranged in the last glaciation. The moderating influence of the sea is reduced by the cold waters of the Labrador current sweeping along the East and West coasts. Summers are cool and winters relatively mild.

The capital city is St. John's, on the East Coast of the Avalon Peninsula. Other urban areas are Corner Brook on the West Coast and Grand Falls in the central part of the island, both pulp and paper centres.

**Prince Edward Island.** The smallest province is cradled in the Gulf of St. Lawrence, east of New Brunswick and north of Nova Scotia and separated from them by the Northumberland Strait. It has no pronounced upland but attains an altitude of about 140 m above sea level. The coast is greatly indented and has many bays and inlets running inland in every direction. Influenced by the sea, the climate is quite moderate except for occasional extreme lows in winter.

The capital of Prince Edward Island is Charlottetown.

**Nova Scotia** is a peninsular province almost surrounded by waters of the Bay of Fundy, the Atlantic Ocean, the Gulf of St. Lawrence and Northumberland Strait. It is connected with New Brunswick by the Isthmus of Chignecto. The northeastern portion, Cape Breton Island, is separated from the mainland by the Strait of Canso, now traversed by a permanent causeway. The island is almost bisected from northeast to southwest by the saltwater Bras d'Or Lake; a wooded upland rises in the North. Most of the mainland is of low relief. Summer and winter temperatures are more moderate than in interior continental areas at the same latitude and the seasons are somewhat later. Winters are stormy on the Atlantic Coast and fog is prevalent all year. The Atlantic side is rocky and deeply indented with bays and inlets providing many harbours.



The two large urban areas are Halifax-Dartmouth and Sydney-Glace Bay. Halifax, the capital, is situated on one of the best landlocked harbours in the world.

**New Brunswick** is nearly rectangular with an extensive seacoast provided by the Chaleur Bay on the North, the Gulf of St. Lawrence and Northumberland Strait on the East, and the Bay of Fundy on the South. It adjoins Quebec and the United States.

The surface is mostly undulating. A north-western plateau, 300 to 450 m above sea level, is deeply dissected by valleys leading to the Saint John River which flows generally southward across the province. The central highlands consist of a dissected plateau about 610 m above sea level. A maritime plain slopes eastward from the highlands and extends along the coast of New Brunswick from the southern shore of Chaleur Bay. New Brunswick's climate reflects the moderating influence of the sea. Seasons are somewhat delayed and temperatures in the interior are more extreme than on the coasts.

Fredericton is the capital. Saint John, at the mouth of the Saint John River, is the principal port and industrial centre.

**Quebec**, the largest province in area, extends north and west of the St. Lawrence River and Gulf of St. Lawrence to Hudson Strait and Hudson Bay and a line running due south of James Bay; it is bounded on the southwest by the Ottawa River and on the northeast by Labrador. South of the St. Lawrence are the Eastern Townships and the Gaspé Peninsula.

Physiographically, Quebec has three regions. The plateau-like highlands of the Canadian Shield occupy the greater part of the area north of the St. Lawrence River. Made up of a mass of ancient and mainly hard rocks, they present a rough, broken surface strewn with lakes. The Appalachian Mountains extend through the area south of the St. Lawrence. The St. Lawrence lowlands are low and flat, covered by deep clay deposited when the area was invaded by the Champlain Sea after the melting of Pleistocene ice. In this fertile agricultural area the people for generations gained their livelihood from the land. Although now far outranked by manufacturing as an employer, agriculture is still a fundamental way of life.

In the St. Lawrence Valley, the frost-free season extends from early May to late September. Northward and westward, winter temperatures become more extreme and the summers cooler.

Montreal, the largest city, is one of the great industrial, commercial and financial centres of the continent. The capital city of Quebec was founded by Champlain in 1608.

**Ontario** has a freshwater shoreline on the Great Lakes and a northern saltwater shoreline on Hudson Bay and James Bay.

Ontario has two major geological regions, the Canadian Shield and the gentler lowlands of the Great Lakes-St. Lawrence region. The Canadian Shield terrain, a rugged, rocky plateau strewn with lakes and muskeg, is a difficult surface over which ground transportation routes have been constructed with great effort. The height of land lies in a wide crescent north of Lake Superior. A slope descends gently toward James Bay and Hudson Bay to a marginal strip, the Hudson Bay lowlands. This area bears the brunt of severe winter cold waves moving east from the Prairies or south from the Arctic across Hudson Bay. Summers, though warm, are short.

The southern lowlands region, about one-sixth the size of northern Ontario, has such glacial features as rock plains, morainic hills, till plains, clay plains, drumlins and sand plains. The southwestern tip extends farther south than any other part of Canada. Peninsular Ontario has a much milder climate than the northern districts. Since it lies in a major storm track, wide variations occur in weather, especially in winter, but conditions of severe cold or excessive warmth are not prolonged.

This lowlands area is densely populated and highly industrialized. Favourable climate, fertile soil and ease of travel over relatively unobstructed terrain and on the St. Lawrence River and the Great Lakes influenced population growth and agriculture became well established. Early colonial settlements have become highly industrialized and produce almost every product required by consumers. The area is now one of the world's great industrial agglomerations with the provincial capital, Toronto, as its focal point.

**Manitoba** is the most easterly of the three Prairie provinces. It has two distinct topographic forms, the largest part within the Canadian Shield. The demarcation line begins close to the southeast boundary and runs diagonally northwest through Lake Winnipeg to the Saskatchewan border. The northern area has heavily glaciated topography and deranged drainage. Its major rivers, Nelson and Churchill, flow into Hudson Bay. The southwestern portion is the lowest of three step-like formations across the great central plains. It is floored by deep fertile clay soils left by glacial lakes that once covered the area. It is separated from the Saskatchewan plain along its western boundary by the Manitoba escarpment, a narrow belt of hilly terrain.

Manitoba has the greatest water-power potential of the three Prairie provinces. The North is well

Map 1.1

**Capital cities of Canada**

forested but much of the productive area is so remote that forest industries are not highly developed.

Winnipeg, the capital, is the industrial centre of Manitoba.

**Saskatchewan** is two-thirds prairie lowland, the great grain-producing region of Canada. The demarcation line between the lowlands and the Canadian Shield, crossing into Saskatchewan near the 55th parallel, continues northwest across the province although it becomes less sharply defined. The second step of the prairie formation, covered with deep fertile soil, is exceptionally flat in some areas but elsewhere hummocky with innumerable sloughs. The next scarp is the Missouri Coteau from which extends the highest of the prairie steps. The Cypress Hills rise above this level. Cutting across the lowland are the branches of the Saskatchewan River which flow to Lake Winnipeg.

Saskatchewan's climate is continental with long cold winters and warm summers. The frost-free period in the fertile lowland areas ranges from 80 to 100 days. Precipitation is low with an average of less than 50 cm a year.

The urban centres — Regina, the capital, and Saskatoon — serve mainly as distributing centres for their surrounding areas.

**Alberta** lies mainly in the interior plains region. The southern part is dry, treeless prairie changing toward the north into a zone of poplar interspersed with open prairie and giving way to mixed forests.

The boundary follows the 49th parallel, strikes northwest following the ridge of the Rocky Mountains to a point close to the 55th parallel and then turns directly north to the 60th parallel. From the Saskatchewan border in the southern area the plain rises gradually as it merges into the Rocky Mountain Foothills. This foothills area is part of the Western Cordilleran region. The Alberta Rockies have numerous high peaks close to or on the British Columbia boundary.

The South is subject in winter to cold dry air masses of continental polar air, occasionally moderated by Chinook winds. Summers are warm with abundant sunshine but rainfall is meagre and highly variable, particularly in the southwest, with periodic droughts. In some areas irrigation projects have been developed, taking water from the rivers rising in the mountains to the West.

The metropolitan areas of Edmonton, the capital, and Calgary are in the oil and gas producing areas.

**British Columbia** consists almost completely of the Cordilleran region made up of parallel



mountain ranges oriented in a north-south direction with a set of parallel linear valleys.

The Rocky Mountains on the East present a continuous range of wall-like ridges, cut up by glaciation into sharp peaks, knife-like edges and deep hollows. Some of the highest peaks in the Canadian Rockies rise to 3 500 m or more.

The central section is marked off by the Rocky Mountain Trench which contains the headwaters of the Kootenay, Columbia, Fraser, Peace and Liard rivers. Westward, relief is lower and broader and the effects of glaciation are not as spectacular. This section consists of several mountain ranges, with plateaus and lake basins between them.

In the western section the Coast Mountains extend southward from the St. Elias Mountains where the loftiest peaks on the continent thrust up out of glistening icefields.

The inner passage adjacent to the coast — the Strait of Georgia, Queen Charlotte Strait and Hecate Strait — is one of the finest natural waterways in the world. Vancouver Island rises steeply from a rocky coastline; in the Queen Charlotte Islands, individual mountain ranges are separated by deep, narrow valleys.

Prevailing westerly winds and the warm Pacific waters result in mild wet winters in the coastal area, warm summers and the longest average frost-free season in Canada. Inland, there are greater ranges of temperature and much less rainfall. Semi-arid conditions occur in some of the plateau areas of the interior. The North has long cold winters, short cool summers and moderate precipitation.

Vancouver is the largest city, a rapidly growing industrial complex and seaport. Victoria, the capital, is on the southern tip of Vancouver Island.

**Yukon**, north and slightly west of British Columbia, is a triangular area of plateaus and mountain ranges bounded by Northwest Territories and Alaska. Its only seacoast extends along the Arctic Ocean west of the Mackenzie River delta. Between the Coast Mountains on the West and the Mackenzie Mountains on the East lies a plateau of rough, irregularly rolling upland. Numerous river valleys cut through mountains and plateaus. In the southwest many peaks of the St. Elias Mountains reach heights of over 4 000 m. The highest point in Canada, Mount Logan (5 951 m), is located in this mountain range.

The whole region is north of latitude 60° and part is beyond the Arctic Circle. In summer, long hours of daylight promote rapid growth where there is suitable soil. In winter, the days are short with little effective sunshine. Despite wide variations in temperature, winters are remarkably mild for the latitude and periods of intense cold are of short duration.

The Alaska Highway provides a transport link with British Columbia and Alberta. The capital and main urban centre is Whitehorse.

**Northwest Territories** includes all Canadian territory north of the 60th parallel of latitude except Yukon, the northwestern tip of Quebec and Labrador, and all islands south of the 60th parallel in Hudson Bay and James Bay. This vast area, more than one-third of Canada, is one of extremes in topographical characteristics, flora and fauna, and climate with permafrost throughout. East of the mountain fringe along the Yukon boundary, the mainland plains slope east to Hudson Bay and northeast to the Arctic Archipelago. The interior plains of the central continent extend to the Arctic Ocean. Across the low-lying mainland area flows the Mackenzie River, draining Great Slave Lake and Great Bear Lake and emptying into the Arctic Ocean, a distance of about 4 240 km. The whole northeastern portion of the mainland is treeless tundra studded with countless lakes, swamps and muskeg. In southern areas summers last for about three months with temperatures above 10°C. North of the treeline, freezing temperatures may occur during any month and winters are long and bitterly cold. In the Archipelago, high mountain ranges lie in a general north-south direction across Baffin, Devon and Ellesmere islands. Climates are moderated by the sea so that extremes are not as severe as in a continental area of the same latitude. Temperatures in the Archipelago are generally below -18°C for six months or more. Occasional mild periods occur during the winter, particularly in the western Arctic. Summers are short and cool. Winter nights and summer days are long, reaching a maximum of 24 hours. Precipitation is extremely light and falls mostly in late summer.

The capital, Yellowknife, is situated on the north shore of Great Slave Lake. Road access to the rest of Canada is restricted to the Mackenzie Delta and Great Slave Lake areas. In the eastern Arctic, the focal point is Frobisher Bay.

### 1.1.2 Economic geography

**Newfoundland.** The economy is based largely on natural resources and their processing. Pulp and paper and food processing are the main elements of manufacturing. Iron ore is the largest component of the substantial mineral production with zinc and asbestos having some importance. Cod forms over half the value of landed species in the extensive fishing industry.

**Prince Edward Island.** Agriculture is the principal occupation. Almost 70% of the land is cultivated, producing mixed grain crops but specializing in potato growing. Dairying and livestock raising are also important. The lobster catch accounts for

about 60% by value of primary fishery production. Food processing makes up the bulk of manufacturing.

**Nova Scotia.** The fishery is one of Canada's largest; principal species by landed value are lobster, cod, scallop and haddock. Agriculture is centred on dairy products, livestock and fruit. Coal is the principal mineral produced; others are gypsum and salt. Manufacturing is varied and includes food processing, forest products and transportation equipment.

**New Brunswick.** Forest products and food processing are the principal types of manufacturing. The most important species in the provincial fishery in terms of landed value are lobster and crab. Agriculture is varied, with dairy products and potatoes being the most important products. In mineral production, zinc, lead and byproduct metals form most of the value of minerals produced.

**Quebec** accounts for about one-quarter of Canadian manufacturing. Leading are textile and clothing industries, followed by food processing, pulp and paper, primary metals, chemicals, metal fabricating, the wood industries and transportation equipment. Quebec is a major producer of gold, iron ore and copper, and a leading world producer of asbestos. Agriculture is concentrated on dairy products and livestock. There is a sea fishery with cod being the principal species. Quebec is a major producer of hydroelectric power.

**Ontario** accounts for about half of Canadian manufacturing. The largest single sector is transportation equipment; others include food processing, primary metals, metal fabricating, electrical products, chemicals, pulp and paper, and printing. Ontario ranks first among the provinces in agricultural receipts. In farming, livestock and dairy products predominate but there is a large production of cash crops, notably tobacco and vegetables. Although Ontario ranks second in mineral production by value, it is first in metals production including nickel, copper, uranium, gold and zinc. There is a freshwater fishery, primarily in the Great Lakes.

**Manitoba.** The economy has been built on agricultural resources, mainly wheat and other grain crops but a variety of livestock products are also important. Manufacturing is varied, led by food processing and metal fabricating. Mineral production is primarily based on metals, especially nickel, copper and zinc; petroleum is also notable. There is a commercial freshwater fishery.

**Saskatchewan.** Agriculture is the leading industry with wheat and other grains the major component. The large value of mineral production is

divided among non-metals, principally potash (Saskatchewan is a major world producer of potash), fuels and metals, notably uranium. The manufacturing sector is relatively small and varied.

**Alberta.** About half the value of minerals produced in Canada comes from Alberta, almost entirely related to fuels — petroleum, natural gas and its byproducts (including natural gas liquids and sulphur), and coal. Agriculture is an important sector with grains and livestock prominent. There is a substantial diversified manufacturing sector.

**British Columbia.** Natural resources are the basis of the economy. Forestry is particularly important, both as a primary activity and as the largest component of the province's manufacturing sector. Although lumber is the main forest product, pulp and paper production is also substantial. Other manufacturing includes food processing and metals. The province's mineral production is very large, with both fuels (coal, natural gas and petroleum) and metals (notably, copper and molybdenum) predominating. Dairy products and cattle are the main forms of agriculture; fruit, vegetables and specialty crops are also prominent. Salmon makes up over half the landed value of the extensive fishery with herring also important.

**Yukon.** Mining is a leading activity with gold and silver the principal products, at present.

**Northwest Territories.** The mining industry is large with zinc, gold and lead the leading minerals. There is also some oil and gas production. Fur and fisheries resources, the mainstay of the native population, are exploited commercially to some extent.

### 1.1.3 Settlement

There is no permanent settlement in approximately 89% of Canada. Only the smallest province, Prince Edward Island, is completely occupied. Large parts of the interior of Nova Scotia, New Brunswick and the Gaspé Peninsula are vacant. Around the coast of Newfoundland and on the shores of the St. Lawrence River below Quebec City there are only narrow bands of settlement.

About 58% of Canada's population lives between the American border and a 1 046 km east-west line from Quebec City to Sault Ste Marie, Ont. In this area, the cities of Montreal, Toronto, Hamilton, Ottawa, London, Windsor, Quebec City and Kitchener account for more than one-third of the population.

The largest tract of continuous settlement is in Manitoba, Saskatchewan and Alberta, north of the United States border. This block occupies about 6.2% of Canada's area and contains five major cities, Edmonton, Calgary, Winnipeg, Saskatoon and Regina. North of this mainly agricultural block, astride the Alberta-British Columbia



border, is the Peace River district, an agricultural area which reaches the 57th parallel.

The southern half of British Columbia is settled in interconnecting strips following mountain valleys and coastal plains. BC's population is most dense, however, in the lower mainland, principally in the Vancouver area.

North of the areas already described are a number of remote settlements, the largest being in Ontario and Quebec between the 47th and 50th parallels. Outside these urban-rural blocks are numerous settlements related to mining, forest industries, transportation, administration, defence, hunting and fishing but with little or no agriculture.

## 1.2 Physical features

### 1.2.1 Mountains

The great Cordilleran mountain system is Canada's most impressive physical feature. Many peaks in the various ranges of the Canadian Cordillera are over 4 500 m (metres) high and approximately 1 502 km<sup>2</sup> of territory lie above the 3 048 m mark. Mount Logan, 5 951 m above sea level, in the St. Elias Mountains of Yukon is the highest point in Canada.

Rosslund, BC, is the highest city in Canada (1 056 m) and Lake Louise, Alta., is the highest hamlet (1 540 m). Chilco Lake in British Columbia, with an area of 158 km<sup>2</sup>, is the highest major lake (1 171 m). Heights of the more important Canadian mountains and other elevations are given in Table 1.2.

### 1.2.2 Inland waters

Abundant water supplies have contributed significantly to Canada's development.

Each year millions of tonnes of water fall on Canada as rain and snow. Much of it evaporates, some is stored in lakes, groundwater reservoirs and glaciers, and a larger amount runs off in rivers or streams to the oceans. The Atlantic and Pacific coastal regions experience the highest precipitation (100-140 cm), followed by Ontario and Quebec (65-90 cm) and the semi-arid Prairie region (40-55 cm). Canada's northland receives the lowest precipitation (15-40 cm).

About 30% of the mean annual precipitation occurs as snow, and much of it remains stored in its natural form for several months until spring. Then flooding may occur, when river levels rise, and the melting snow cannot be carried off rapidly enough.

Despite abundant water in southern Canada, certain areas, particularly the Prairies, are inadequately supplied. This is due in part to sparse rainfall and due to the fact that almost half of Canada's water flows northward through undeveloped areas, largely unused.

About 7.6% of Canada's total area is covered by lakes and rivers, making surface water the source of 90% of freshwater for water users throughout Canada (Table 1.1). The remaining 10% is obtained from groundwater sources.

Lakes are natural regulators of river flow; they smooth out peak flows during flooding and sustain streamflow during dry seasons. Among the largest freshwater bodies in the world are the Great Lakes with an area of almost 250 000 km<sup>2</sup>; 36% is in Canada and 64% in the United States (Table 1.3). The size and elevation of other large Canadian lakes are listed in Table 1.4.

Groundwater and alpine glaciers contribute to streamflow in Canada. In some areas, particularly the Prairies, groundwater is the principal source of water for streams during extended dry weather periods. In hot summer months, glaciers may contribute up to 25% of the flow of the Saskatchewan and Athabasca rivers.

The main measure of a country's water supply is its renewable streamflow. On an average annual basis, Canada's rivers discharge roughly 107 000 m<sup>3</sup> per second, nearly 9% of the world's renewable water supply and equivalent to about 60% of Canada's mean annual precipitation. Table 1.5 lists Canada's principal rivers.

The international boundary between Canada and the United States, including Alaska, is 8 900 km long, of which 3 900 km lie along or across water bodies. Boundary basins are of economic importance to both countries.

**The Atlantic drainage basin** is dominated by the Great Lakes-St. Lawrence system which carries ocean-going vessels into the heart of North America and constitutes one of the largest single reserves of freshwater in the world. The vastness of this water area is evident from the fact that the lakes are able to absorb and moderate large variations in flow entering them and still maintain remarkably uniform outflows.

**The Hudson Bay drainage basin** is the largest in area but sparse rainfall in its western region places it second highest in terms of river flow, behind Atlantic drainage. It is noted for agriculture on the West and hydroelectric development on rivers surrounding Hudson Bay.

**The Arctic drainage basin** is dominated by the Mackenzie, one of the world's longest rivers. It flows from the head of the Finlay River to the Arctic Ocean and drains an immense area in the three western provinces and northern territories. Except for a 26 km portage in Alberta, barge navigation is possible from Fort McMurray on the Athabasca River to the mouth of the Mackenzie, a distance of 2 700 km.



**The Pacific drainage basin** contains rivers that rise in the mountains of the Cordilleran region and flow to the Pacific Ocean through steep canyons and over innumerable falls and rapids. They provide power for large hydroelectric developments and in season swarm with salmon returning inland to their spawning grounds.

**Use of inland water.** Dams built across large rivers have met the major share of Canada's electric energy needs over past years and still meet two-thirds of that need today. Recreation, transportation, wildlife and fisheries are other important uses of water in its natural setting.

Uses which withdraw water from its source are classified as municipal and industrial. Current industrial uses and their relative share of water are thermal power generation (cooling) 52%, manufacturing 27%, agriculture 8% and the mineral industry 2%. The remaining 11% is attributed to municipal water use. In manufacturing and the mineral industry, water is recirculated, that is, it is used more than once before being returned to source. Agriculture is the only use that consumes most of the water withdrawn, with as little as 23% being available for other users; in contrast, thermal electric generation returns to source more than 99% of the water withdrawn.

### 1.2.3 Coastal waters

Canada's coastlines, measuring nearly 244 000 km on the mainland and offshore islands, are collectively among the longest of any country in the world.

**Atlantic.** Along this coast, over time the sea has inundated valleys, lower parts of the Appalachian Mountains and the Canadian Shield. The submerged continental shelf has great width and diversity of relief. From the coast of Nova Scotia its width varies from 60 to 100 nautical miles, from Newfoundland 100 to 280 nautical miles at the entrance of Hudson Strait, and northward it merges with the submerged shelf of the Arctic Ocean. The outer edge varies in depth from 183 to 366 m. The overall gradient of the Atlantic continental shelf is slight but the whole area is studded with shoals, plateaus, banks, ridges and islands. The 73 m line is an average of 12 nautical miles from the Nova Scotia Coast and is the danger line for shipping. The whole floor of the marginal sea is traversed by channels and gullies cutting deep into the shelf. Large areas undergo constant change because of continuous marine deposit of materials eroded by rivers, wave action, wind and ice.

**Hudson Bay and Hudson Strait** bite deeply into the continent. Hudson Bay is a shallow inland sea

822 324 km<sup>2</sup> in area having an average depth of about 128 m; the greatest depth in the centre of the bay is 258 m. Hudson Strait separates Baffin Island from the continental coast and connects Hudson Bay with the Atlantic Ocean. It is 796 km long and from 69 to 222 km wide; its greatest depth of 880 m is close inside the Atlantic entrance. There are great irregularities in the seafloor but few navigational hazards, except in inshore waters.

**Pacific.** The marginal sea of the Pacific differs strikingly from other marine zones of Canada. The hydrography of British Columbia is characterized by bold, abrupt relief — a repetition of the mountain landscape. Numerous inlets penetrate the mountainous coasts for distances of 93 to 139 km. They are usually a nautical mile or two wide with deep canyon-like sides. From the islet-strewn coast, the continental shelf extends from 50 to 100 nautical miles to its limit at depths of about 366 m. The seafloor drops rapidly from the western slopes of Vancouver Island and the Queen Charlotte Islands. These detached land masses are the dominant features of the Pacific marginal sea. Numerous shoals and pinnacle rocks necessitate cautious navigation.

**Arctic.** The submerged plateau extending north of North America is part of the great continental shelf surrounding the Arctic Ocean, on which lie all the Arctic islands of Canada, Greenland, and most of the Arctic islands of Europe and Asia. This shelf north of Siberia is about 500 nautical miles wide; north of North America it surrounds the western islands of the Archipelago and extends 50 to 300 nautical miles seaward from the outermost islands.

The floor of the submerged continental margin is nearly flat to gently undulating, with isolated rises and hollows. Most of it slants seaward with an abrupt break at the outer edge to the continental slope. From the Alaskan border eastward to the mouth of the Mackenzie River the shelf is shallow and continuous with the coastal plain on the mainland; its outer edge is at a depth of about 64 m and 40 nautical miles offshore. Near the western edge of the Mackenzie River delta it is indented by the deep Mackenzie Trough, formerly referred to as the Herschel Sea Canyon, whose head comes within 15 nautical miles of the coast. The submerged portion of the Mackenzie Delta forms a great pock-marked undersea plain, most of it less than 55 m deep, up to 75 nautical miles wide and 250 miles long. North and east of it, the continental shelf is more deeply submerged. Most of the well-defined continental shoulder is over 549 m deep, giving way to the smooth continental slope which extends to the abyssal Canada Basin at about 3 658 m. The deeply submerged continental shelf

runs along the entire West Coast of the Canadian Arctic Archipelago from Banks Island to Greenland. Major channels between the islands have flat floors at about the same depth as the shelf. A few local irregularities may be the result of glacial action. The only deep indentation is one sinuous canyon that heads off Robeson Channel at the northeastern end, close to Greenland. Submerged sides of the channels of the Archipelago, and slopes from the islands' western shores are marked in many places by a series of steps.

#### 1.2.4 Islands

Canada's largest islands are in the North in the Canadian Arctic Archipelago. The northern group extends from the islands in James Bay to Ellesmere Island which reaches 83°07' N.

The largest on the West Coast are Vancouver Island and the Queen Charlotte Islands, but the coastal waters are studded with many small rocky islands. The largest off the East Coast are the Island of Newfoundland, Prince Edward Island, Cape Breton Island, Grand Manan and Campobello islands of New Brunswick and Anticosti Island and the Îles de la Madeleine of Quebec.

Notable islands of the inland waters include Manitoulin Island, in Lake Huron, the so-called Thirty Thousand Islands of Georgian Bay and the Thousand Islands in the outlet from Lake Ontario into the St. Lawrence River.

The areas of principal islands by region are given in Table 1.6.

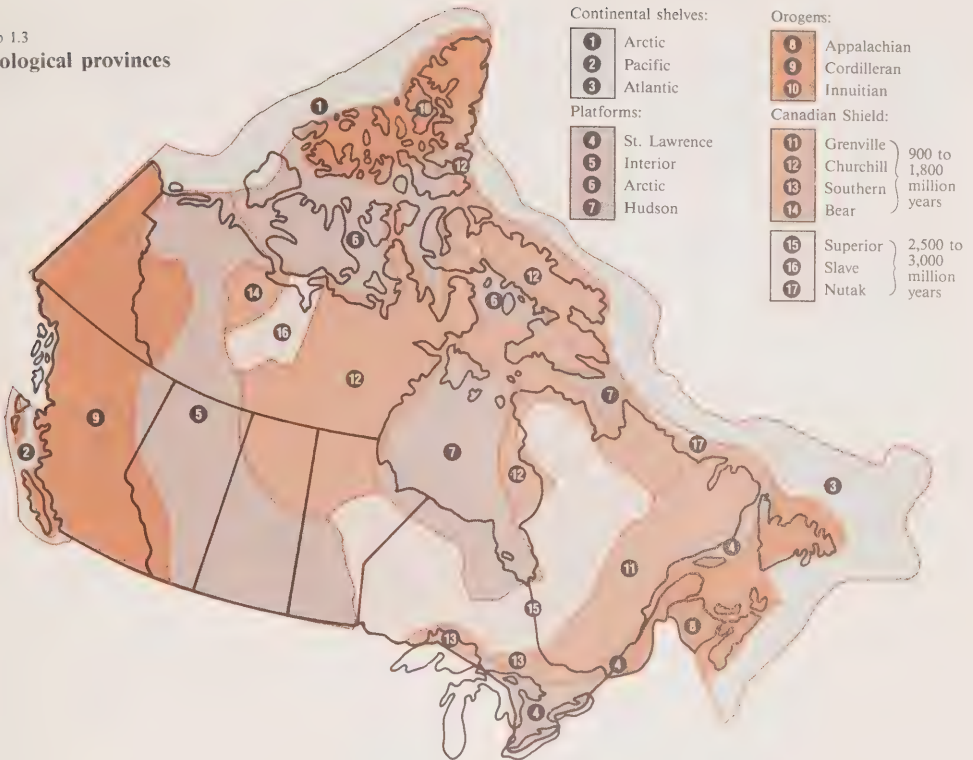
#### 1.2.5 Surveying and mapping

The Surveys and Mapping Branch (SMB) of the federal Energy, Mines and Resources department (EMR) is Canada's national mapping agency. The branch provides the precise geodetic survey framework which is fundamental to all other forms of surveying. The mapping of Canada has been completed at the scale of 0.4 cm to 1.0 km (1:250,000). All of the settled areas and many regions of northern development, amounting to more than 80% of the country, have also been mapped at a larger scale of 2.0 cm to 1.0 km (1:50,000). Photomaps derived from air photographs cover some of the areas mapped at the larger scale.

A legal surveys division of EMR manages and regulates surveys of federal lands, such as the northern territories, national parks, Indian reserves and offshore areas and is responsible for the custody of the related land survey information. The division is implementing a property mapping system which will form the base for a multipurpose land information system. It executes surveys on behalf of administering departments, collaborates in the demarcation and maintenance of



Map 1.3

**Geological provinces**

provincial and territorial boundaries and verifies descriptions of electoral districts.

A geographical services division provides geographical information and cartographic advice to other federal programs. This division produces the *National Atlas of Canada*, the *Canada Gazetteer Atlas*, aeronautical charts and air information required for regulation, safety and development of Canadian civilian and military aviation. A national geographical names data base provides information on the status, origin and location of the names of 350,000 geographical features and places in Canada.

A permanent committee on geographical names establishes federal policy for the treatment of geographical names. Its secretariat advises on the origin and use of names and geographical terminology. The committee of 20 members, representing both federal and provincial jurisdictions, recognizes the right of each province to make decisions on names in its own area.

An international boundary commission maintains a well-defined boundary line between Canada and the United States and regulates all works, such as buildings, pipelines and roads crossing or near the line.

Maps, aeronautical charts and air information publications may be purchased from the Canada

Map Office. Reproductions of federal aerial photography and colour transparencies of selected LANDSAT satellite scenes of the landmass may be purchased from the National Air Photo Library.

### 1.3 Geology

Canada is composed of 17 geological provinces which are of four major categories; shield, orogen, platform and shelf.

**The Precambrian Shield** is a vast region covering most of eastern and north-central Canada in a broad band around Hudson Bay. It is composed of seven geological provinces. Three of them, Superior, Slave and Nutak, were deformed during the Archean Eon and contain the oldest continental crust known in Canada ranging from 2,500 to over 3,000 million years in age. Churchill, Southern and Bear provinces embrace ancient mountain belts produced 1,750 million years ago during a major Proterozoic orogeny. A younger Proterozoic orogeny about 1,000 million years ago deformed the Grenville province.

The shield was worn down by erosion in late Precambrian times. The sea encroached during the succeeding Paleozoic and Mesozoic eras and deposited sediments. These were largely stripped off by erosion in Cenozoic time. The shield has

a characteristically hummocky surface and is low lying except along its eastern margin in Labrador, and Baffin and Ellesmere islands.

**Orogens.** The Appalachian, Cordilleran and Innuitian orogens are mountain belts of deformed and metamorphosed sedimentary and volcanic rocks, mainly of Phanerozoic age, intruded by great masses of granite. The orogens are of different ages and different complex origins.

**Platforms.** The St. Lawrence, Interior, Arctic and Hudson platforms are formed of thick, flat-lying Phanerozoic strata which cover large parts of the Canadian Shield. The Interior platform is a vast flatland extending west from the edge of the shield to the foothills of the Rocky Mountains.

**Shelves.** The geologically youngest provinces, the submarine Atlantic, Pacific and Arctic continental shelves, are formed of little deformed sediments chiefly of Mesozoic and Cenozoic age that have accumulated and are still accumulating along the margins of the present continental mass.

## 1.4 Climate

Climate depends primarily on radiative exchanges between the sun, the atmosphere and the surface of the earth. Regional climates of Canada are controlled by the geography of North America and by the general movement of air from west to east. The Pacific Coast is cool and fairly dry in summer but mild, cloudy and wet in winter. Interior British Columbia has climates varying more with altitude than latitude: wet windward mountain slopes with heavy snows in winter, dry rainshadow valleys, hot in summer, and high plateaus with marked day to night temperature contrasts. Interior Canada, from the Rocky Mountains to the Great Lakes, has a continental-type climate with long cold winters, short but warm summers and scanty precipitation. Southern portions of Ontario and Quebec have a humid climate with cold winters, hot summers and generally ample precipitation all year. The Atlantic provinces have a humid continental-type climate although in the immediate coastal areas there is a marked maritime effect. On the northern islands, along the Arctic Coast and around Hudson Bay, arctic conditions persist, with long frigid winters and only a few months with temperatures averaging above freezing. Precipitation is light in the tundra area north of the treeline. Between the arctic and southern climates, boreal Canada has a transitional type climate with bitter long winters but appreciable summer periods. Precipitation is light in the West, but heavier in the Ungava Peninsula.

**Climatic data.** Some climatic detail of individual provinces and territories is given in Section 1.1.1, Regional geography. Temperature and precipitation data for various districts are shown in Table 1.7.

## 1.5 Time zones

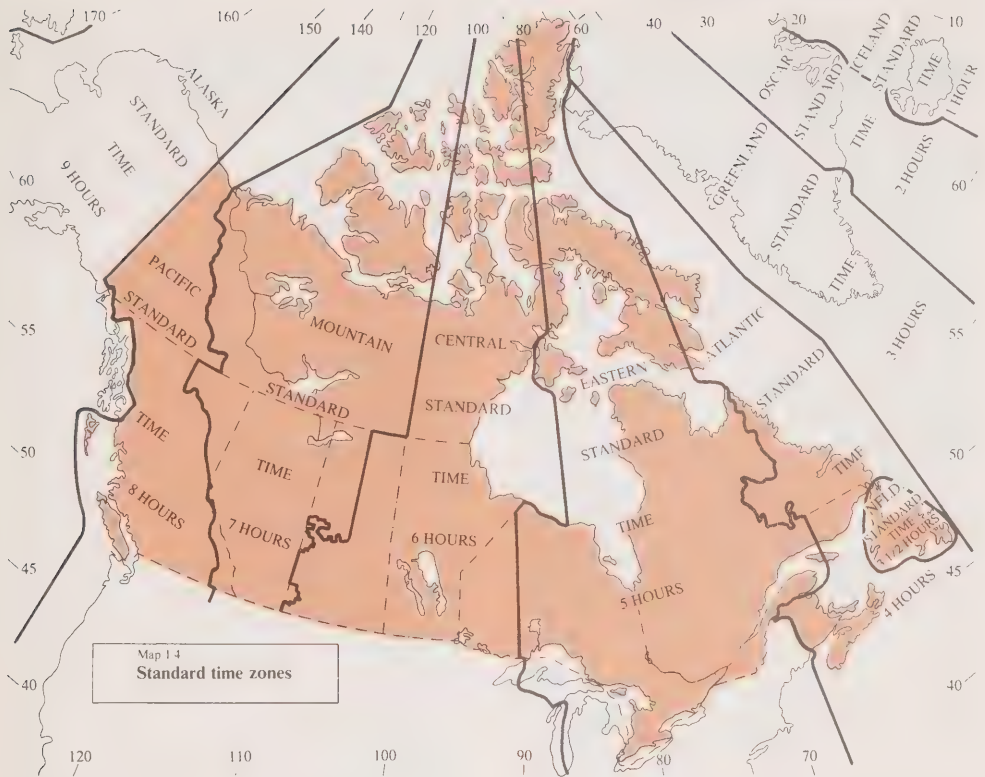
Canada has six time zones. The most easterly, Newfoundland standard time, is three hours and 30 minutes behind Coordinated Universal Time (UTC), and the most westerly, Pacific standard time, is eight hours behind UTC. From east to west, the remaining zones are called Atlantic, Eastern, Central and Mountain.

Standard Time, adopted at a world conference at Washington, DC in 1884, sets the number of time zones in the world at 24, each zone ideally extending over 1/24th of the surface of the earth and including all the territory between two meridians 15° of longitude apart. In practice, the zone boundaries are quite irregular for geographic and political reasons. UTC is the time of the zone centred on the zero meridian through Greenwich, England. Each of the other time zones is a definite number of hours ahead of or behind UTC to a total of 12 hours, at which limit the international date-line runs roughly north-south through the mid-Pacific.

**Legal authority for the time zones.** Time in Canada has been of provincial rather than federal jurisdiction. Each of the provinces and territories has enacted laws governing standard time and these laws determine the time zone boundaries. Lines of communication, however, have sometimes caused communities near the boundary of a time zone to adopt the time of the adjacent zone, with amendments to provincial legislation. Official time for federal purposes is the responsibility of the National Research Council of Canada (NRC).

Based on atomic clocks, Canada's time is established by the National Research Council with a precision of one ten-millionth of a second per day, and co-ordination with other countries is maintained to the same precision through the Bureau international de l'Heure in Paris.

**Daylight saving time.** Most provinces have legislated provincial adoption (or rejection) of daylight saving time; in the other provinces authority is left to the municipalities. By general agreement, daylight saving time set at one hour earlier than standard time is in force from the first Sunday in April until the last Sunday in October throughout Canada, except in most of the province of Saskatchewan. Previous to April 1987, daylight saving time began the last Sunday in April.



Map 1-4  
Standard time zones

## 1.6 Land use

The lands directorate of Environment Canada investigates from a national perspective problems of land use and management. It provides information on land use, socio-economic and environmental concerns relating to the land resource, and means of dealing with these concerns. A federal policy on land use provides guidelines to federal departments and agencies. The directorate undertakes research on the impact of federal policies and programs on land use and prepares publications on resource lands. Studies have investigated agricultural land-use change, mining and the environment, planning land for natural heritage, and land/water planning.

The directorate operates a Canada land inventory (CLI). Under federal-provincial agreements, all settled lands have been classified according to their capabilities for agriculture, forestry, recreation, wildlife, sport fishing, and land use (circa 1967). These data, used for regional planning, have been entered into a computerized Canada land data system (CLDS). More than 3,000 CLI maps are available, as well as census data, information on federal land holdings, watershed boundaries and ecological land data. For information not covered by the CLI program, an ecological land classifica-

tion system has been designed. A northern land-use information mapping program has been completed for Yukon and most of Northwest Territories. The directorate is developing an ecodistrict data base for all Canada.

A Canada land-use monitoring program (CLUMP) concentrates on regions with prime resource lands. The urban-centred component provides a national perspective on land-use change for fringe areas of major urban regions with populations over 25,000. The prime resource component monitors land-use changes in the prime agricultural and fruitland areas.

## 1.7 Heritage resources

### 1.7.1 Federal parks

**National parks.** Canada's national parks system, encompassing more than 180 000 km<sup>2</sup>, is one of the largest in the world.

In 1885 the Canadian government reserved from private ownership the mineral hot springs of Sulphur Mountain in what is now Banff National Park. Two years later this reserve was extended and named Rocky Mountains Park, the first federal park in Canada. At present, there is at least one national park in each province and territory.



About 20 million visits a year are now recorded in the national parks. Details of the parks with their description, size and location are given in Table 1.8.

To protect not only unique and outstanding areas of the Canadian land and seascapes but also those representative of its physical, biological, and oceanographic characteristics, 48 distinctive natural regions have been identified with a view to having national parks eventually in each of these natural regions; 20 regions are now represented. As an example, in 1986 an agreement was signed with the Northwest Territories to establish Ellesmere Island National Park Reserve.

**National marine parks.** Canada is bounded by three oceans and has the largest volume of freshwater among all countries of the world. Extension of the national parks system to represent the Pacific, Arctic and Atlantic coasts and inland waters, with identification of the marine natural regions and marine natural history themes is an objective of the National Marine Parks Policy approved in 1986.

**National historic parks and sites.** National historic parks and sites commemorate persons, places and events of major significance in Canada's historical development.

The National Parks Act of 1930 provided that any land may be set apart to commemorate a historic event, or preserve any historic landmark or any object of historic, prehistoric or scientific interest of national importance. The historic sites and monuments board may recommend that sites, buildings and other structures of national importance be developed as national historic parks or historic sites or commemorated by the erection of plaques or distinctive monuments.

The National Historic Parks and Sites Branch has been instrumental in creating 80 national historic parks and major sites, and in commemorating with plaques more than 1,000 persons and events of national (as opposed to local or regional) significance. Negotiations are conducted with provinces for acquiring other sites. The branch has entered into cost-sharing agreements with provincial and municipal governments and with incorporated non-profit societies for acquiring and restoring architecturally or historically significant buildings and structures on the understanding that the other party will pay the balance of acquisition and restoration costs and will maintain the buildings in perpetuity. In recent years, nearly 5 million visits have been recorded annually at Canada's national historic parks and sites.

**Heritage rivers.** Six provinces and the two territories are participating with the federal government in a co-operative program to give national recognition to rivers that are significant examples of the natural environment; have played an important role

in history; or offer outstanding recreational opportunities. The French River in Ontario and the Alsek River in Kluane National Park Reserve in the Yukon were proclaimed as Canadian Heritage Rivers in 1986.

**Heritage canals.** The Rideau-Trent-Severn waterway exemplifies the importance of heritage canals as recreational waterways which emphasize not only navigation but also visitor participation. Heritage canals illustrate both historical development and early engineering technology.

**World heritage sites.** Canada is one of 87 nations that have adhered to the UNESCO World Heritage Convention to identify and protect cultural and natural properties throughout the world considered to be of outstanding universal value. Nine Canadian sites are on the world heritage list: L'Anse aux Meadows National Park, Nfld.; Dinosaur Provincial Park and Head-Smashed-In Buffalo Jump, Alta.; Anthony Island Provincial Park, BC; Kluane National Park, Yukon; Nahanni National Park, NWT; Wood Buffalo National Park, NWT-Alta.; Canadian Rocky Mountains National Parks, Alta.-BC; and the Historic District of Quebec City.

### 1.7.2 Heritage Canada Foundation

This is a charitable national organization created in 1973 to promote an awareness of the architectural heritage on a nationwide basis. It received an initial federal capital endowment of \$12 million in 1972; interest on this fund is used to further its work. Additional support is solicited from the private and public sectors.

### 1.7.3 Provincial parks

All provincial governments have established parks within their boundaries. Some are wilderness areas set aside so that portions of the country might be retained in their natural state. Most of them, however, are smaller areas of scenic interest, easily accessible and equipped or slated for future development as recreational parks with camping and picnic facilities. (For details see Table 1.9.)

**Newfoundland.** The first park was established in 1954 in western Newfoundland. Then camping and picnicking areas were developed along the Trans-Canada Highway. Later parks were extended to outlying parts along the coast. The system includes camping parks, day-use parks with facilities for picnics and swimming, natural scenic attractions and reserves for future parks.

**Prince Edward Island.** The provincial park system is a diversified network of 31 unique parks. Ranging in size from simple picnic areas to large resort complexes, the parks are mostly situated

along the coast. All parks are easily accessible and several offer organized recreation and interpretive programs.

**Nova Scotia.** The provincial parks system started in the late 1950s with roadside sites. This has expanded to overnight campgrounds, day-use picnic and roadside parks, day-use beach parks and wildlife parks. Many of the parks have facilities designed to meet the needs of the handicapped and most of the parks are easily accessible from main highways.

**New Brunswick.** The provincial system includes recreational parks, picnic parks, campgrounds, and beach and resource parks. Most are in rural areas adjacent to or easily accessible from main roads. Several parks have organized activity, lifeguards and interpretation programs. Two year-round parks are Mactaquac, near Fredericton and Sugarloaf near Campbellton.

**Quebec.** The parks and reserves system administered by the Quebec government comprises parks and wilderness reserves, inns, campgrounds, golf courses, picnic areas, nautical parks and other recreational and tourist sites. Visitors are able to camp, canoe, hike and in winter go cross-country skiing or snowshoeing.

**Ontario.** The provincial system, begun in 1893, has 219 parks; features an extraordinary variety of landscapes and resources; and provides countless recreational opportunities. Algonquin, the first provincial park, continues to be world renown. Petroglyphs contains the largest concentration of prehistoric Indian rock carvings in Canada; Ouimet is the grand canyon of the North; Quetico offers one of the best lake canoeing areas in North America; and Sandbanks features an extensive freshwater dune system. The Mattawa River offers the experience of paddling the same waters as the voyageurs.

**Manitoba.** The system includes natural parks, heritage parks, provincial recreation parks, and wayside parks and campgrounds throughout the province. Atikaki, the province's first Wilderness Park, was established in 1985. Resource-based parks and related land-use areas are maintained for the enjoyment and recreation of Manitoba's citizens and visitors.

**Saskatchewan.** In 1931 Duck Mountain, Cypress Hills and Moose Mountain became the first provincial parks. Now parks and recreation sites represent all ecological segments, classified as wilderness, natural environment or recreation. The social importance of outdoor recreation and heritage appreciation is reflected in regional parks designed for recreational use and historic parks as monuments to early trade, conflict and settlement.

**Alberta** provincial parks system, started in 1932, includes 61 provincial parks, 66 provincial recreation areas and three wilderness areas. Proposed new areas include ecological reserves and a multiple-use recreation area. The major provincial parks include Peter Lougheed, Cypress Hills, Dinosaur, Lesser Slave Lake and Writing-on-Stone. Other important components of the provincial outdoor recreation system are the large Willmore Wilderness Park and several forest land-use zones providing multiple-use recreation opportunities on the eastern slopes of the Rocky Mountains.

**British Columbia** has the largest number of provincial parks among the provinces. The system began in 1911 with Strathcona Park in central Vancouver Island and has expanded to include wilderness areas, camping and picnicking sites, downhill and cross-country ski areas, a marine park system, historic and heritage parks, a canoe circuit, wildlife sanctuaries, and outstanding examples of the province's physical features.

#### 1.7.4 The National Capital Region

Ottawa, Canada's capital, lies along the Ottawa River below the Chaudière Falls. The name Ottawa comes from Outaouac or Outaouais, an Indian tribe from Lake Huron which controlled trade on the river.

Ottawa, Ont. and Hull, Que. comprise the core of the 24-municipality National Capital Region, an area of about 4 662 km<sup>2</sup> with a population of about 715,000. A large proportion of the Capital's work force is employed by the federal government.

The National Capital Commission (NCC) manages and develops federally owned property in the National Capital Region, particularly in regard to the establishment and maintenance of monuments, parks and historic properties and the provision of appropriate interpretation services.

The Commission also manages a number of recreational facilities such as the skating rink on the Rideau Canal and hundreds of kilometres of recreational pathways. Stress is also laid on cultural events such as Canada Day and the annual winter festival, Winterlude.

The NCC co-operates with a number of municipal, regional, provincial and federal agencies to accomplish its work in the National Capital Region and in many cases performs an important coordinating function.

**Gatineau Park** is a 351 km<sup>2</sup> forest and wildlife reserve north of Ottawa and Hull. It has 40 km of parkway, magnificent lookouts, hundreds of lakes and beaches, picnic areas and historic treasures at the Mackenzie King Estate. It is enjoyed by about 1.8 million visitors a year.

## 1.8 Environment

Environment Canada has a mandate to foster harmony between society and the environment for the economic, social and cultural benefits of present and future generations of Canadians.

### 1.8.1 Environmental quality

In its strategic planning, the department has identified the following priorities.

**Toxic substances** released into the environment, especially if persistent, can have a cumulative effect on all living things, including humans. The department is undertaking to identify threats as early as feasible. It has proposed that responsibility should be shared among governments and actual or potential polluters, that action should be taken to prevent or mitigate adverse consequences, and that public consultations should be held on the environmental and socio-economic trade-offs in using polluting substances. A new Environmental Protection Act will be introduced to Parliament in 1987 that will consolidate the Environmental Contaminants Act, the Canada Water Act, Part III, the Clean Air Act and Section 6(2) of the Department of the Environment Act (1979). The new act will upgrade the penalties for a breach of the toxic chemicals provisions. The Minister will be endowed with powers to recall chemicals, products, etc., which he deems to be unsafe. These and other provisions will make the act one of the most advanced of its kind in the world.

**Acid rain** is caused by emissions of sulphur dioxide and nitrogen oxide in Canada and the United States. To solve Canada's acid rain problem, deposition of wet sulphate in all vulnerable areas in Eastern Canada must be reduced to less than 20 kilograms per hectare a year. Achieving this environmental objective requires that total sulphur dioxide emissions east of the Saskatchewan/Manitoba border be reduced to 2.3 million tonnes (50% of the 1980 level) and that the transboundary flow of sulphur dioxide from the US into Canada be reduced to about 2 million tonnes a year (50% of the 1980 level). The federal government and the seven eastern provinces have agreed to cut emissions by 50% by 1994 at the latest. At the March 1986 summit meeting of President Reagan and Prime Minister Mulroney, the President endorsed the findings and conclusions of the Special Envoys on Acid Rain. These included implementation of a five-year \$5 billion program in the US to develop control technology and the establishment of a bilateral, advisory and consultative group on transboundary air pollution.

**Water resources management** may become as significant an issue by 1990 as energy has been in recent years. Elements of concern include: growing

imbalances between water supply and demand especially on the Prairies; inadequate water quality in various parts of the country; pressures for water export to the United States; proposals for major diversions in Canada; and conflicts in water use plans among provinces and territories. The final report of the Inquiry on Federal Water Policy — the first comprehensive assessment of the government's role in managing water resources — was published in 1985. Following extensive consultations on the report's recommendations, the federal government is developing a comprehensive water policy.

**Land resources.** Increased demands for renewable resources including forestry and agricultural products make it necessary to maintain land productivity and the related resource base. Issues are multiple land use, possible degradation of soil quality and loss of wildlife habitat, increasing soil erosion and water supply considerations, and land-use demands from urbanization.

**Climate change.** Carbon dioxide levels in the atmosphere are increasing by 3% per decade from burning fossil fuels, deforestation and other altered land use. This may cause significant warming of the earth surface, altering climates and economies. A warmer climate in Canada would expand growing and ocean transportation seasons in the North. It would increase aridity in Southern Canada threatening drought, water shortages, and reduced river and lake levels. Changes elsewhere in the world could alter Canada's international trade position. A Canadian climate program plans to monitor changes in carbon dioxide and climate, predict the effects, prepare related socio-economic impact scenarios, develop adaptive strategies and provide monthly and seasonal climate predictions.

**Waterfowl protection.** A plan to manage North American waterfowl was signed by Canada's Federal Environment Minister Thomas McMillan and the US Secretary of the Interior Donald Hodel in May 1986. The plan proposes a far-reaching \$1.5 billion management agreement to be undertaken jointly by private and public interests in Canada and the United States to bring seriously declining waterfowl populations back to the average annual fall migration level in the 1970s of 100 million birds.

The objectives of the plan are to be achieved over a 15-year period. It will seek to restore the breeding habitat of mallard and pintail ducks in the mid-continental region by protecting and improving 3 million acres of duck habitat in Canada and the United States. Additional habitat will be protected in the lower Mississippi River and Gulf Coast region, and the Central Valley of California. Other projects will protect black duck habitat in Eastern Canada and the East Coast of the United States.



**National parks reserves.** Amendments to the National Parks Act were introduced to the House of Commons in December 1986. Among the major proposals were significant increases in the fines and penalties for poaching. The federal Environment Minister and the NWT Minister of Economic Development and Tourism signed an agreement, in September 1986, to establish the Ellesmere Island National Park Reserve. Negotiations were begun with British Columbia to create a park in South Moresby, and with Ontario, for a park on the Bruce Peninsula.

### 1.8.2 Environmental review

The Environmental Assessment and Review Process (EARP) is administered by a federal review office to determine the potential environmental consequences of proposals that require a federal government decision. This includes activities initiated by all government departments, boards and agencies.

EARP is administered when a department intends to undertake any proposal of its own or when it has the authority to make a decision about

a proposal of another organization that might have an environmental effect on government responsibility, would require government funds, or would be undertaken on federally administered lands, including those offshore. It deals with the physical, biological, and directly related social effects of proposals.

Early in planning before irrevocable decisions or actions are taken, a department makes an initial assessment of each proposal. As a result, it may proceed with or without mitigation, be abandoned, or be referred to the Minister of the Environment for a public review by an independent panel appointed by the Minister. This review is a detailed examination with many opportunities for public participation, including public hearings. A panel determines and studies the potential environmental impacts and examines the scope and importance of issues and concerns. It produces a report with recommendations for the Environment Minister and the Minister who referred the proposal for review. The report is made public and the initiating Minister decides the extent to which the recommendations are necessary before proceeding.

### Sources

- 1.1 – 1.1.4, 1.2.1, 1.2.4 – 1.2.5    Geographical Services Division, Surveys and Mapping Branch, Department of Energy, Mines and Resources.
- 1.2.2, 1.4, 1.6, 1.8 – 1.8.1    Information Directorate, Department of the Environment.
- 1.2.3    Communications Directorate, Department of Fisheries and Oceans.
- 1.3    Geoscience Information Division, Department of Energy, Mines and Resources.
- 1.5    Physics Division, National Research Council.
- 1.7.1    Parks Canada, Information Branch, Department of the Environment.
- 1.7.2    Heritage Canada Foundation.
- 1.7.3    Supplied by the respective provincial government departments.
- 1.7.4    Public Activities Branch, National Capital Commission.
- 1.8.2    Federal Environmental Assessment Review Office.

TABLES

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not appropriate or not applicable
- nil or zero
- too small to be expressed
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estimate
- p

preliminary
- r

revised
- certain tables may not add due to rounding

1.1 Land and freshwater areas, by province

Province or territory	Land km <sup>2</sup>	Freshwater km <sup>2</sup>	Total km <sup>2</sup>	Percentage of total area
Newfoundland <sup>1</sup>	371 690	34 030	405 720	4.1
Prince Edward Island	5 660	—	5 660	0.1
Nova Scotia	52 840	2 650	55 490	0.6
New Brunswick	72 090	1 350	73 440	0.7
Quebec	1 356 790	183 890	1 540 680	15.5
Ontario	891 190	177 390	1 068 580	10.7
Manitoba <sup>1</sup>	548 360	101 590	649 950	6.5
Saskatchewan <sup>1</sup>	570 700	81 630	652 330	6.5
Alberta	644 390	16 800	661 190	6.6
British Columbia <sup>1</sup>	929 730	18 070	947 800	9.5
Yukon Territory <sup>1</sup>	478 970	4 480	483 450	4.8
Northwest Territories <sup>1</sup>	3 293 020	133 300	3 426 320	34.4
Canada	9 215 430	755 180	9 970 610	100.0

Note: All figures have been rounded to the nearest 10 to reflect their approximate nature.  
<sup>1</sup> Recalculated figures 1981.

1.2 Principal heights in each province and territory, by range or region

Province and height	Elevation m	Province and height	Elvation m
NEWFOUNDLAND		ALBERTA	
Long Range Mountains		Rocky Mountains	
Lewis Hills	814	Mount Columbia	3 747
Mealy Mountains		The Twins	3 733
Unnamed peak	1 176	Mount Alberta	3 620
Torngat Mountains		Mount Assiniboine	3 618
Mount Caubwick	1 622	Mount Forbes	3 612
Cirque Mountain	1 568	Mount Temple	3 547
Kaumajet Mountains		Mount Lyell	3 504
Bishops Mitre	1 113	Hungabee Mountain	3 492
PRINCE EDWARD ISLAND		Snow Dome	3 520
Highest point on the Island,		Mount Kitchener	3 490
Queens County (46°20' 63°27')	142	BRITISH COLUMBIA	
NOVA SCOTIA		Coast Mountains	
Highest point,		Mont Waddington	4 019
Cape Breton (46°42' 60°36')	532	St. Elias Mountains	
NEW BRUNSWICK		Fairweather Mountain	4 663
Mount Carleton	820	Monashee Mountains	
Wilkinson Mountain	785	Torii Mountain	3 429
QUEBEC		Selkirk Mountains	
Mont d'Iberville (Monts Torngat)	1 652	Mount Sir Sandford	3 522
Les Appalaches		Purcell Mountains	
Mont Jacques-Cartier	1 268	Mount Farnham	3 481
Mont Gosford	1 192	Columbia (Cariboo) Mountains	
Les Laurentides		Sir Wilfrid Laurier	3 520
Mont Tremblant	968	Rocky Mountains	
Collines Montréaléiennes		Mount Robson	3 954
Mont Bromé	533	Mount Clemenceau	3 642
ONTARIO		Mount Goodsir: North Tower	3 581
Ishpatina Ridge	693	Mount Bryce	3 507
Niagara Escarpment		Mount Columbia	3 747
Blue Mountains	541	YUKON	
MANITOBA		St. Elias Mountains	
Baldy Mountain	832	Mount Logan	5 951
SASKATCHEWAN		Mount St. Elias	5 489
Cypress Hills	1 468	Mount Lucania	5 226
		King Peak	5 173
		Mount Steele	5 077

**1.2 Principal heights in each province and territory, by range or region (concluded)**

Province and height	Elevation m	Province and height	Elevation m
<b>NORTHWEST TERRITORIES</b>		<b>NORTHWEST TERRITORIES (concluded)</b>	
Arctic Islands		Victoria	
Baffin		Unnamed peak	655
Mount Odin	2 147	Mainland	
Banks		Mount Sir James MacBrien	2 762
Durham Heights	732	Mackenzie Mountains	
Devon		Unnamed peak	2 773
Ice Cap	1 920	Franklin Mountains	
Ellesmere		Cap Mountain	1 577
Barbeau Peak, highest point in Arctic Islands	2 616		

**1.3 Elevations, areas and depths of the Great Lakes**

Lake	Elevation <sup>1</sup> m	Length km	Breadth km	Maximum depth m	Total area km <sup>2</sup>	Area on Canadian side of boundary km <sup>2</sup>
Superior	184	563	257	405	84 243	29 888
Michigan	176	494	190	281	57 757	—
Huron	177	332	295	229	63 096	39 473
Erie	174	388	92	64	25 812	12 880
Ontario	75	311	85	244	19 001	10 388

<sup>1</sup> Long-term mean 1860-1972; International Great Lakes Datum, 1955.**1.4 Elevations and areas of principal lakes<sup>1</sup> (exceeding 600 km<sup>2</sup>)**

Province and lake	Elevation m	Area km <sup>2</sup>	Province and lake	Elevation m	Area km <sup>2</sup>
<b>NEWFOUNDLAND AND LABRADOR</b>			<b>MANITOBA (concluded)</b>		
Melville Lake	tidal	3 069	Island	227	1 223
Smallwood Reservoir	471	6 527	Manitoba	248	4 624
<b>NOVA SCOTIA</b>			Playgreen	217	657
Bras d'Or	tidal	1 099	Southern Indian	254	2 247
<b>QUEBEC</b>			Lake Winnipeg	217	24 387
Lac Bienville	426	1 249	Lake Winnipegosis	254	5 374
Réservoir Cabonga	361	677	<b>SASKATCHEWAN</b>		
Lac à l'Eau-Claire	241	1 383	Lake Athabasca <sup>2</sup>	213	7 935
Réservoir Gouin	404	1 570	Cree	487	1 434
Réservoir Manicouagan	360	1 942	Doré	459	640
Lac Minto	168	761	Lac La Ronge	364	1 413
Lac Mistassini	372	2 335	Peter Pond	421	778
Réservoir Pimpuacan	396	978	Reindeer <sup>2</sup>	337	6 650
Lac Saint-Jean	98	1 003	Wollaston	398	2 681
<b>ONTARIO</b>			<b>ALBERTA</b>		
Abitibi Lake <sup>2</sup>	265	931	Lake Claire	213	1 436
Big Trout	213	661	Lesser Slave	577	1 168
Lake of the Woods <sup>2</sup> (total 4 472)			<b>BRITISH COLUMBIA</b>		
Canadian part 3 150	323	3 150	Atlin <sup>2</sup>	668	775
Lake Nipigon	320	4 848	Williston	671	1 761
Lake Nipissing	196	832	<b>NORTHWEST TERRITORIES</b>		
Rainy (total 932)			Aberdeen	80	1 100
Canadian part 741	338	741	Amadjuak	113	3 115
Lac Seul	357	1 657	Aylmer	375	847
Lake Simcoe	219	744	2	2	1 887
Lake St. Clair (total 1 210)			Baker	265	612
Canadian part 490	175	490	Buffalo	375	737
<b>MANITOBA</b>			Clinton-Colden	564	957
Cedar	253	1 353	Contwoyto	396	633
Cross	207	755	Lac de Gras	236	3 833
Gods	178	1 151	Dubawnt	311	681
			Ennadai		



**1.4 Elevations and areas of principal lakes<sup>1</sup> (exceeding 600 km<sup>2</sup>) (concluded)**

Province and lake	Elevation m	Area km <sup>2</sup>	Province and lake	Elevation m	Area km <sup>2</sup>
<b>NORTHWEST TERRITORIES (continued)</b>			<b>NORTHWEST TERRITORIES (concluded)</b>		
Garry	148	976	Napaktiluk	381	1 080
Great Bear	156	31 326	Nettilling	30	5 542
Great Slave	156	28 568	Nonacho	354	784
Hottah	180	918	Nueltin <sup>2</sup>	278	2 279
Kamilukuk	266	638	Point	375	701
Kaminak	53	600	Selwyn <sup>2</sup>	398	717
Kasba	336	1 341	Tulemalu	279	668
Lac la Martre	265	1 776	Wholdaia	364	678
MacKay	431	1 061	Yathkyed	140	1 449

Areas are given for mean water levels. All elevations are in metres above mean sea level.

<sup>1</sup> Excludes Great Lakes, see Table 1.3.

<sup>2</sup> Spans provincial or territorial boundary. Listed under province or territory containing larger portion. Area given is total area.

**1.5 Lengths of principal rivers and their tributaries<sup>1</sup>**

Drainage basin and river	Length km	Drainage basin and river	Length km
<b>FLOWING INTO THE PACIFIC OCEAN</b>		<b>FLOWING INTO HUDSON BAY AND HUDSON STRAIT (concluded)</b>	
Yukon (mouth to head of Nisutlin)	3 185	English	615
(International Boundary to head of Nisutlin)	1 149	Fairford (to head of Manitoba Red Deer)	684
Porcupine	721	Churchill (to head of Churchill Lake)	1 609
Stewart	644	Beaver (to outlet of Beaver Lake) <sup>2</sup>	491
Pelly	608	Seyern (to head of Black Birch)	982
Teslin	393	Albany (to head of Cat)	982
Columbia (mouth to head of Columbia Lake)	2 000	Thelon	904
(International Boundary to head of Columbia Lake)	801	Dubawnt	842
Kootenay	780	La Grande-Rivière (Fort George River)	893
Kettle (to head of Holmes Lake) <sup>2</sup>	336	Koksoak (to head of Caniapiscaw)	874
Okanagan (to head of Okanagan Lake) <sup>2</sup>	314	Nottaway (via Bell to head of Mégiscane)	776
Fraser	1 370	Rupert (to head of Témiscamie)	756
Thompson (to head of North Thompson)	489	Eastmain	748
North Thompson	338	Attawapiskat (to head of Bow Lake)	732
South Thompson (to head of Shuswap)	332	Kazan (to head of Ennadai Lake)	724
Nechako (to head of Eutsuk Lake)	462	Grande rivière de la Baleine	565
Stuart (to head of Driftwood) <sup>2</sup>	415	George	547
Skeena	579	Moose (to head of Mattagami)	547
Stikine	539	Abitibi (to head of Louis Lake)	443
Nass	380	Mattagami (to head of Minisinkwa Lake)	426
		Missinaibi	533
		Harricana/Harricanaw	483
		Hayes	480
		Aux Feuilles	475
		Winisk	450
		Broadback	428
		A la Baleine	389
		de Povungnituk	385
		Innuksuac <sup>2</sup>	380
		Petite rivière de la Baleine <sup>2</sup>	377
		Arnaud (Payne)	360
		Nastapoca <sup>2</sup>	304
		Kogaluc <sup>2</sup>	
<b>FLOWING INTO THE ARCTIC OCEAN</b>		<b>FLOWING INTO THE ATLANTIC OCEAN</b>	
Mackenzie (to head of Finlay)	4 241	St. Lawrence River	3 058
Peace (to head of Finlay)	1 923	Nipigon (to head of Ombabika)	209
Smoky	492	Spanish <sup>2</sup>	338
Athabasca	1 231	Trent (to head of Irondale) <sup>2</sup>	402
Pembina <sup>2</sup>	547	Ottawa River	1 271
Liard	1 115	Gatineau	386
South Nahanni	563	du Lièvre <sup>2</sup>	330
Fort Nelson (to head of Sikanni Chief)	517	Saguenay (to head of Péribonca)	698
Petitot <sup>2</sup>	404	Peribonca	451
Hay <sup>2</sup>	702	Mistassini	298
Peel (mouth of west Channel to head of Ogilvie)	684	Chamouchouane	266
Arctic Red <sup>2</sup>	499	Saint-Maurice	563
Slave (from Peace River to Great Slave Lake)	415	Manicouagan (to head of Mouchalagane)	560
Fond du Lac (to outlet of Wollaston Lake)	277	aux Outardes	499
Back (to outlet of Muskox Lake) <sup>2</sup>	974	Romaine	496
Coppermine <sup>2</sup>	845	Betsiamites (to head of Manouanis)	444
Anderson <sup>2</sup>	692	Moisie	410
Horton <sup>2</sup>	618	St-Augustin	233
		Richelieu (to mouth of Lake Champlain)	171
		Churchill (to head of Ashuanipi)	856
		Saint John	673
		du Petit-Mécatina	547
		Natashquan	410
<b>FLOWING INTO HUDSON BAY AND HUDSON STRAIT</b>			
Nelson (to head of Bow)	2 575		
(to outlet of Lake Winnipeg)	644		
Saskatchewan (to head of Bow)	1 939		
South Saskatchewan (to head of Bow)	1 392		
Red Deer <sup>2</sup>	724		
Bow <sup>2</sup>	587		
Oldman <sup>2</sup>	362		
North Saskatchewan	1 287		
Battle (to head of Pigeon Lake) <sup>2</sup>	570		
Red (to head of Shyenne)	877		
Assiniboine <sup>2</sup>	1 070		
Winnipeg (to head of Firesteel)	813		

<sup>1</sup> Mean annual discharge at mouth of confluence of 280 m<sup>3</sup> and length greater than 100 km.

<sup>2</sup> Mean annual discharge less than 280 m<sup>3</sup> but length greater than 300 km.

1.6 Areas of major islands, by region

Region and island	Area km <sup>2</sup>	Region and island	Area km <sup>2</sup>
BAFFIN ISLAND	507 451	ARCTIC ISLANDS SOUTH OF QUEEN ELIZABETH ISLANDS (concluded)	
QUEEN ELIZABETH ISLANDS		Air Force	1 720
Ellesmere	196 236	Wales	1 137
Devon	55 247	Rowley	1 090
Axel Heiberg	43 178	HUDSON BAY AND HUDSON STRAIT	
Melville	42 149	Southampton	41 214
Bathurst	16 042	Coats	5 498
Prince Patrick	15 848	Mansel	3 180
Ellef Ringnes	11 295	Akimiski	3 001
Cornwallis	6 996	Flaherty	1 585
Amund Ringnes	5 255	Nottingham	1 372
Mackenzie King	5 048	Resolution	1 015
Borden	2 794	PACIFIC COAST	
Cornwall	2 258	Vancouver	31 285
Eglinton	1 541	Graham	6 361
Graham	1 378	Moresby	2 608
Lougheed	1 308	Princess Royal	2 251
Byam Martin	1 150	Pitt	1 375
Île Vanier	1 126	ATLANTIC COAST	
Cameron	1 059	Newfoundland and Labrador	
ARCTIC ISLANDS SOUTH OF QUEEN ELIZABETH ISLANDS		Newfoundland (main island)	108 860
Victoria	217 291	Gulf of St. Lawrence	
Banks	70 028	Cape Breton	10 311
Prince of Wales	33 339	Anticosti	7 941
Somerset	24 786	Prince Edward	5 656
King William	13 111	Bay of Fundy	
Bylot	11 067	Grand Manan	137
Prince Charles	9 521		
Stefansson	4 463		
Richards	2 165		

1.7 High and low temperatures and precipitation data for typical stations in various districts

District and station	Temperatures (Celsius)					Precipitation			
	Mean Jan.	Mean July	Highest on record	Lowest on record	Av. dates of freezing temperatures (0°C or lower)		Total (all forms) mm	Snowfall cm	Av. number of days (all forms)
					Last in spring	First in autumn			
NEWFOUNDLAND									
Island									
Belle Isle	-9.6	9.3	22.8	-35.0	June 21	Sept. 29	898.8	255.5	161
Gander A	-6.2	16.5	35.6	-31.1	June 3	Oct. 7	1 130.1	405.2	213
Labrador									
Cartwright	-13.2	12.7	36.1	-37.8	June 19	Sept. 13	953.7	440.0	183
Goose A	-16.4	15.8	37.8	-39.4	June 5	Sept. 18	946.1	445.2	185
MARITIME PROVINCES									
Prince Edward Island									
Charlottetown A	-7.1	18.3	34.4	-28.1	May 16	Oct. 14	1 169.4	330.6	174
Nova Scotia									
Annapolis Royal	-4.0	18.1	32.8	-27.2	May 23	Sept. 29	1 279.9	254.3	152
Halifax	-3.1	18.2	34.4	-25.0	Apr. 30	Oct. 19	1 282.0	216.5	153
Sydney A	-4.7	17.7	35.0	-25.6	May 23	Oct. 14	1 399.9	317.9	186
New Brunswick									
Chatham A	-9.7	19.2	37.8	-35.0	June 27	Sept. 2	1 096.7	333.1	160
Grand Falls	-12.2	18.2	36.7	-43.3	June 22	Aug. 28	1 012.4	306.7	105
QUEBEC									
Northern									
Fort Chimo A	-23.3	11.4	32.2	-46.7	June 17	Sept. 3	504.2	245.2	163
Inoucoujoc									
(Port Harrison)	-24.5	8.3	30.0	-46.1	May 24	Sept. 19	386.5	144.2	139
Schefferville A	-22.8	12.6	31.7	-50.6	Apr. 19	Oct. 14	768.7	386.5	196
Southern									
Bagotville A	-15.8	17.9	36.1	-43.3	May 13	Sept. 28	921.9	346.1	191
Montreal McGill	-8.7	21.8	36.1	-33.9	May 12	Sept. 30	1 020.1	242.8	163
Quebec A	-12.1	19.1	35.6	-36.1	May 30	Sept. 12	1 174.0	343.4	175
Sherbrooke	-9.8	20.0	36.7	-41.1	June 7	Sept. 16	949.9	253.2	169

1.7 High and low temperatures and precipitation data for typical stations in various districts (concluded)

District and station	Temperatures (Celsius)						Precipitation		
	Mean Jan.	Mean July	Highest on record	Lowest on record	Av. dates of freezing temperatures (0°C or lower)		Total (all forms) mm	Snowfall cm	Av. number of days (all forms)
					Last in spring	First in autumn			
ONTARIO									
Northern									
Thunder Bay A	-15.4	17.6	37.2	-41.1	May 17	Sept. 28	711.8	213.0	138
Big Trout Lake	-24.5	16.0	35.6	-47.8	Apr. 20	Oct. 29	580.8	213.9	161
Southern									
Parry Sound	-9.9	19.1	37.8	-41.1	May 24	Sept. 17	1 093.5	330.6	162
Toronto	-4.6	22.0	40.6	-32.8	May 23	Sept. 22	800.5	139.2	134
PRAIRIE PROVINCES									
Manitoba									
The Pas A	-22.7	17.7	36.7	-49.4	May 24	Sept. 11	453.7	170.0	131
Winnipeg A	-19.3	19.6	40.6	-45.0	May 21	Sept. 16	525.5	125.5	120
Saskatchewan									
Regina A	-17.9	18.9	43.3	-50.0	May 25	Sept. 8	384.0	115.7	111
Saskatoon A	-19.3	18.5	40.0	-47.8	May 15	Sept. 22	348.8	113.1	108
Alberta									
Edmonton Ind. A	-15.0	17.4	34.4	-48.3	May 14	Sept. 8	466.1	135.7	124
Medicine Hat A	-12.6	19.9	42.2	-46.1	May 15	Sept. 22	347.9	125.5	91
BRITISH COLUMBIA									
Pacific Coast and Coastal Valleys									
Prince Rupert	1.7	13.3	32.2	-21.1	Apr. 22	Oct. 31	2 403.1	84.1	229
Victoria	4.1	15.4	35.0	-15.6	Apr. 8	Oct. 29	647.2	32.0	138
Southern Interior									
Princeton A	-7.9	17.8	41.7	-42.8	June 1	Sept. 14	344.5	167.5	115
Central Interior									
Barkerville	-10.7	12.1	35.6	-46.7	June 28	Aug. 16	1 043.9	538.4	177
McBride	-10.3	15.8	37.8	-46.7	June 9	Aug. 28	625.5	218.8	132
Northern Interior									
Fort Nelson A	-23.8	16.6	36.7	-51.7	May 25	Sept. 9	451.8	186.5	134
Smith River A	-24.5	14.1	33.3	-58.9	June 17	Aug. 11	481.0	203.2	146
YUKON									
Dawson	-30.7	15.6	35.0	-58.3	May 28	Aug. 28	306.1	137.1	114
Snag A	-30.4	14.0	31.7	-62.8	June 19	Aug. 10	338.5	154.7	122
Watson Lake A	-26.7	14.9	33.9	-58.9	June 2	Sept. 4	425.2	228.8	153
Whitehorse A	-20.7	14.1	34.4	-52.2	June 8	Aug. 30	261.2	136.6	120
NORTHWEST TERRITORIES									
Mackenzie Basin									
Fort Good Hope	-31.3	16.3	34.4	-55.6	June 2	Aug. 21	281.9	131.6	97
Fort Simpson A	-28.2	16.6	35.0	-53.3	June 3	Aug. 21	355.1	151.0	118
Hay River A	-25.8	15.8	35.6	-48.3	June 2	Sept. 1	339.9	165.0	117
Barrens									
Baker Lake	-33.0	11.0	30.6	-50.6	June 23	Aug. 30	234.6	100.0	106
Chesterfield	-31.5	8.9	30.6	-51.1	June 27	Sept. 3	258.9	112.5	100
Coppermine	-30.1	9.7	32.2	-50.0	June 24	Aug. 23	202.3	100.7	109
Arctic Archipelago									
Clyde	-26.5	4.1	22.2	-46.8	July 13	July 19	206.4	168.9	97
Eureka	-36.4	5.4	19.4	-55.3	July 27	Aug. 3	64.0	44.1	55
Frobisher Bay A	-25.6	7.6	24.4	-45.6	June 28	Aug. 27	432.6	255.5	146
Mould Bay	-33.5	3.9	16.1	-53.9	July 11	July 19	93.1	71.9	78
Resolute A	-32.1	4.1	18.3	-52.2	July 10	July 20	131.4	83.8	96

A = Airport, Ind. A = Industrial Airport.

1.8 National parks by name and year established

Park and year established	Area km <sup>2</sup>	Location	Description
Banff 1885	6 640.8	Western Alberta, on east slope of Rocky Mountains	Scenic mountain area, Banff and Lake Louise resorts. Mineral hot springs. Summer and winter sports. Commercial accommodation. Campgrounds.
Yoho 1886	1 313.1	Eastern British Columbia, on west slope of Rockies	Mountain peaks, waterfalls and lakes. Yoho and Kicking Horse valleys. Commercial accommodations. Campgrounds.



1.8 National parks by name and year established (continued)

Park and year established	Area km²	Location	Description
Glacier 1886	1 349.4	Eastern British Columbia in the Selkirk Mountains	Alpine region, towering peaks, glaciers and forests. Climbing, ski touring, camping.
Waterton Lakes 1895	525.8	Southern Alberta, adjoining Glacier Park in Montana	Mountainous area with peaks and lakes. Commercial accommodation. Campgrounds.
Jasper 1907	10 878.0	Western Alberta, on east slope of Rockies	1 000 km of trails. Icefields, lakes. Mineral hot springs. Summer and winter sports. Commercial accommodation. Campgrounds.
Elk Island 1913	194.3	Central Alberta	Fenced preserve with large herds of buffalo, deer, elk and moose. Summer and winter sports. Campgrounds.
Mount Revelstoke 1914	262.6	Eastern British Columbia, on west slope of Selkirks	Mountain-top plateau, alpine meadows and mountain lakes. No campgrounds.
St. Lawrence Islands 1914	4.1	St. Lawrence River between Brockville and Kingston, Ont.	Mainland area and 17 islands among the Thousand Islands. Accessible by boat from mainland points. Campgrounds.
Point Pelee 1918	15.5	On Lake Erie, south-western Ontario	Wildlife. Beaches, marsh area, southern flora, nature trails. Staging ground for migratory birds.
Kootenay 1920	1 377.9	Southeast British Columbia, on west slope of Rockies	Includes section of Banff-Windermere Highway. Broad valleys, deep canyons, mineral hot springs. Commercial accommodation nearby. Campgrounds.
Wood Buffalo 1922	44 807.0	Alberta and Northwest Territories	Forests and open plains. Mainly a wildlife sanctuary. Largest herds of free roaming bison in world. Accessible from Fort Smith, NWT. Campgrounds.
Prince Albert 1927	3 874.6	Central Saskatchewan	Forest region. Lakes and streams. Summer and winter recreation. Commercial accommodation. Campgrounds.
Riding Mountain 1929	2 975.9	Southwest Manitoba	Wildlife sanctuary on escarpment. Lakes. Commercial accommodation. Campgrounds. Summer and winter recreation.
Georgian Bay Islands 1929	14.2	In Georgian Bay, near Honey Harbour, Ont.	Accessible by boat. Unusual geological formations on Flowerpot Island. Campgrounds. Picnic areas.
Cape Breton Highlands 1936	950.5	Northern Cape Breton Island, NS	Rugged Atlantic coastline. Fine seascapes. Commercial accommodation. Campgrounds.
Prince Edward Island 1937	18.1	North shore, Prince Edward Island	Tennis, golf, bathing beaches. Commercial accommodation. Campgrounds.
Fundy 1948	205.9	On Bay of Fundy in New Brunswick	Forested region, wildlife, rugged terrain. Commercial accommodation. Campgrounds. Winter and summer recreation.
Terra Nova 1957	396.5	On Bonavista Bay, Nfld. North of St. John's	Maritime area, rocky headlands and forests. Sport fishing. Commercial accommodation. Campgrounds.
Kejimikujik 1968	381.5	South-central Nova Scotia	Inland park. Lakes and rivers. Hiking, canoeing, campgrounds, swimming, interpretation program, picnic areas. Historic Micmac Indian petroglyphs.
Kouchibouguac 1969	225.3	On northern Northumberland Strait in New Brunswick	Maritime park with offshore sandbars. Boating. Fishing in streams, rivers, lakes and ocean. Cross-country skiing. Campgrounds.
Pacific Rim 1970	388.5	West coast of Vancouver Island, BC	Sandy beaches, islands, rain forests, lakes and lifesaving trail. Swimming, fishing and surfing. Campgrounds.
Forillon 1970	240.4	Gaspé Peninsula, Que.	Coastal area with rugged cliffs. Rolling, forested inland areas. Campgrounds.

## 1.8 National parks by name and year established (concluded)

Park and year established	Area km <sup>2</sup>	Location	Description
La Mauricie 1970	543.9	Near Trois-Rivières, Que.	Heavily-wooded section of Laurentian Mountains. Many lakes. Fishing. Campgrounds.
Gros Morne 1970	1 942.5	West coast of Newfoundland	Rugged coastal area. Fjord-like lakes, forests, waterfalls. Fishing. Campgrounds.
Pukaskwa 1971	1 877.8	North shore of Lake Superior near Marathon, Ont.	Part of the Precambrian Shield. Wilderness area, rugged lake shore. Rivers, streams and lakes.
Kluane 1972	22 015.9	West of Whitehorse, Yukon	Glaciers and mountains. Mount Logan, Canada's highest peak. Fishing. World heritage site. Campgrounds.
Nahanni 1972	4 765.0	Northwest Territories	Accessible by boat or charter aircraft. Hot springs, canyons, waterfalls, wilderness. World heritage site.
Auyuittuq 1972	21 471.0	Baffin Island	Fjords, mountains, glaciers. Winter and summer activities. Campgrounds.
Grasslands 1981		Saskatchewan	Only protected example of uncultivated short grass prairie, badlands, wildlife. No visitor facilities will be available for several years.
Mingan Archipelago 1984	150.7	Quebec	Rare birds and flora. Unique rock formations.
Northern Yukon 1984	10 168.4	Yukon	Undeveloped wilderness. Important animal habitat.
Ellesmere Island 1986	39 500.0	Northwest Territories	Northernmost lands in Canada. Habitat for musk-ox, arctic hare.

## 1.9 Provincial parks, by province

Province and number of parks	Total area (developed area) km <sup>2</sup>	Type of park	Accommodation <sup>1</sup> and facilities	Activities <sup>1</sup>	Camping parks, 1986	
					No.	Rates
Newfoundland and Labrador (75)	3 337 (235.6 approx.)	Camping Day-use Natural scenic attractions Reserves	Overnight camping - picnic tables - fireplaces - potable water - pit privies Day-use - picnic tables - fireplaces - beach - boat launch - change houses	Angling Swimming Hiking Boating Interpretive programs Snowshoeing Cross-country skiing Camping Photography	42	\$6.00 a night for camping \$10.00 seasonal entry fee \$2.00 daily entry fee seniors - no charge
Prince Edward Island (31)	15 (9)	Campgrounds Resorts Beaches Picnic Roadside rest sites	Mooring facilities Resorts Picnic sites Sandy beaches Campgrounds Serviced tent and trailer sites Marinas	Swimming Golf Tennis Board sailing Canoeing Interpretive programs Camping Skiing - cross-country - downhill	15	\$7.00 - \$9.00 a night no fee for day visits
Nova Scotia (113)	198 (75)	Campgrounds Picnic Beach Roadside rest sites Wildlife Historic	Day-use picnic Day-use beach Campgrounds - tables - water - pit privies - trailer sanitation stations Handicap accessible (19 parks) (1 campground)	Swimming Picnicking Camping Hiking Interpretive programs Angling Canoeing	19	\$7.00 resident seniors - no charge no charge for day-use

1.9 Provincial parks, by province (continued)

Province and number of parks	Total area (developed area) km <sup>2</sup>	Type of park	Accommodation <sup>1</sup> and facilities	Activities <sup>1</sup>	Camping parks, 1986	
					No.	Rates
New Brunswick (48)	233 (31)	Recreation Picnic Campgrounds Beach Resource	Lodge Marinas Campgrounds - tables - potable water - electricity - trailer sanitation stations - washrooms/ comfort stations	Swimming Boating Camping Golfing Interpretive programs Tennis Hiking Windsurfing Snowshoeing Skiing - cross-country - downhill Skating Tobogganing Sleigh rides		\$6.00 - \$8.50 a night \$1.50 a night for electricity
Quebec (91)	92 241	Tourist Wilderness preserves Hunting and fishing preserves Salmon streams Campgrounds Nautical	Cabins Lodges Inns Campgrounds Mooring facilities	Hunting Fishing Hiking Swimming Boating Snowshoeing Skiing - cross-country - downhill Camping Mountain climbing Horseback riding Golf Interpretive programs Cycling Picnicking	30	\$7.00 - \$13.00 a night
Ontario (219)	56 592	Wilderness Natural environment Waterway Nature reserve Recreation Historical	Picnic and camping areas - beaches - picnic tables - fireplaces - firewood - electricity - tested drinking water - washrooms/comfort stations/showers - trailer sanitation stations	Visitor centres Outdoor exhibits Nature trails Swimming Boating Fishing Hiking Skiing - cross-country Board sailing Interpretive programs	95	\$5.00 - \$10.00 a night
Manitoba (164)	14 316	Wilderness Natural Heritage Recreation Special use Wayside	Hotels Motels Cabins Fishing lodges Campgrounds Space available for building summer homes	Swimming Camping Fishing Hiking Tennis Picnicking Boating Snowmobiling Skiing - cross-country - downhill	81	\$6.00 - \$9.00 a night
Saskatchewan (31)	9 080	Provincial - wilderness - natural environment - recreational - historic	Campgrounds - picnic and playground areas - electricity - wood - potable water - washrooms - sewage pumpouts - boat and canoe rentals Modern cabins Chalet	Skiing Camping Picnicking Swimming Historic interest sites Snowmobiling Nature trails Arts and crafts Social functions Hunting, fishing, boating and sailing Snorkelling Auto touring Horseback riding Tennis Golf Cycling Hiking trails Recreation and waterfront programs White-water canoeing	21	\$5.00 - \$7.00 (under review)



**1.9 Provincial parks, by province (concluded)**

Province and number of parks	Total area (developed area) km <sup>2</sup>	Type of park	Accommodation <sup>1</sup> and facilities	Activities <sup>1</sup>	Camping parks, 1986	
					No.	Rates
Alberta (141)	12 514 (1 264)	Provincial - recreational Wilderness area - park Forest land-use zones	Campgrounds Playgrounds Picnic areas Beaches Trails Boat launches Sanitation stations Restaurants Lodge for handicapped (provincial park)	Camping Picnicking Fishing Hiking Golfing Hunting Swimming Boating Interpretive programs Skiing - cross-country - downhill	62	\$3.00 - \$5.00 a night
					70	no charge
British Columbia (367)	46 681	Wilderness area Recreation Natural Marine Historic Restored gold town Heritage	Lodges Campgrounds Picnic areas Mooring facilities Hiking trails Nature trails Boat ramps Recreation vehicle sani-stations	Boating Camping Picnicking Visitor centres Interpretive programs Winter sports Skiing Mountain climbing Hiking	150	\$5.00 - \$10.00 a night

<sup>1</sup> Not applicable at all types of parks.

**Sources**

- 1.1 - 1.6 Geographical Services Division, Department of Energy, Mines and Resources.
- 1.7 Communications, Information Directorate, Department of the Environment.
- 1.8 Parks Canada, Information Branch, Department of the Environment.
- 1.9 Respective provincial government departments.

CHAPTER 2

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# DEMOGRAPHY

## CHAPTER 2

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### DEMOGRAPHY

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## THEN



"[In 1861], at the date of the last census, there were probably, in the various provinces, a million of people of Irish descent, and the remainder—say a million and a quarter, were about half of Scottish, half of English parentage." Those of French origin, enumerated separately, totalled approximately one million. (1861)

Between 1901 and 1911, Canada's rate of increase in population, 34 p.c., was the largest in the world, mainly because of immigration. The rate of increase in the United States was 21 p.c. (1919)

### CENSUS OF BRITISH NORTH AMERICA.

#### I.—ENUMERATION.

The last Census of Canada, Nova Scotia, New Brunswick and Prince Edward Island, was taken in 1861; that of Newfoundland in 1858. The population of these colonies was then found to be—

	Males.	Females.	Total.
Upper Canada.....	725,575	670,516	1,396,091
Lower Canada.....	567,864	543,702	1,111,566
New Brunswick.....	129,048	123,609	252,647
Nova Scotia.....	165,584	165,273	330,857
Prince Edward Island.....	40,880	30,977	80,857
Newfoundland.....	65,118	58,170	124,288
Total.....	1,634,969	1,600,737	3,295,706

## NOW

Canada's population growth rate of 4.2% for the 1981-86 period is the lowest five-year growth rate recorded by the Census in the last 25 years.

- Between 1981 and 1986, Saskatchewan's population increased by 41,885, breaking the one-million population barrier for the first time. Saskatchewan is the sixth province with a population of over one million.

Data from the 1986 Census show that Toronto, Montreal and Vancouver continued to be Canada's three largest metropolitan areas with populations in excess of one million. Together they comprised 7.7 million people or 30.5% of Canada's population.

## CHAPTER 2

# DEMOGRAPHY

### 2.1 Population growth

The most fundamental information about a population is its rate of growth which affects almost every aspect of the national life. Several demographic elements combine to produce this rate: births, deaths, immigration and emigration.

Canada's population reached 25,354,064 on June 3, 1986, the date of the 1986 Census. This represents a growth rate of 4.2% (or 1,010,883 people) over the 1981-86 period.

Although Canada's population is increasing, its rate of growth is actually slowing down. The growth rate of 4.2% for the 1981-86 period is the lowest five-year growth rate recorded by the Census in the last 25 years, down from a high of 9.7% during the 1961-66 period. This decline may be attributed to lower immigration levels and a declining birth rate.

### 2.2 Canada's Census

**Decennial Census.** The basic legal reason for the decennial Census is to enable a redistribution of seats in the House of Commons. Under the terms of the Electoral Boundaries Readjustment Act, the Census must provide population counts by electoral districts.

The 1981 Census was the 12th since Confederation in 1867. The decennial Census has followed an uninterrupted sequence since 1851.

**Quinquennial Census.** In 1956 a new Census was added, to keep statistical information abreast of the demographic and socio-economic developments that affect decision-making in both private and public sectors. These Censuses have been taken every fifth year between decennial Censuses. Canada's most recent quinquennial Census was taken in June 1986.

The Census is a principal source of information for measuring social and economic change, and for detecting those needs which necessitate the development and implementation of policies and programs such as regional development, health and welfare programs, education facilities, immigration, low-income housing and transportation networks.

**Census terms.** The general concept of a Census agglomeration (CA) is one of a large urbanized core, together with adjacent urban and rural areas which have a high degree of economic and social integration with that core.

A CA is defined as the main labour market area of an urban area (the urbanized core) of at least 10,000 population, based on the previous Census. Once a CA attains an urbanized core population of at least 100,000, based on the previous Census, it becomes a Census Metropolitan Area (CMA).

Census Metropolitan Area refers to the main labour market area of an urban area of at least 100,000 population.

Census subdivision refers to municipalities, Indian reserves, Indian settlements and unorganized territories.

Occupied private dwelling refers to a private dwelling in which a person or group of persons is permanently residing.

### 2.3 Growth of the provinces and territories

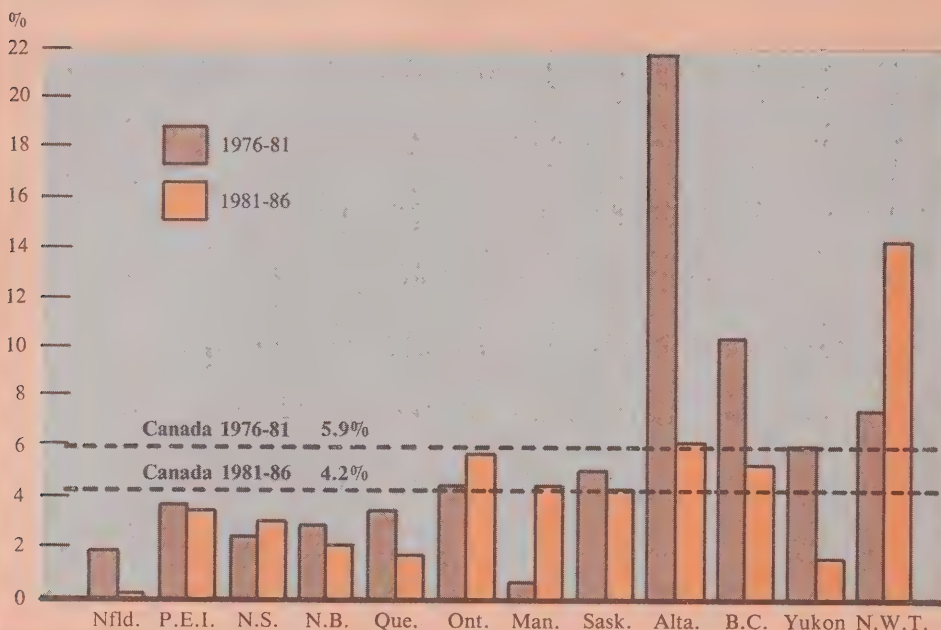
Five of the 10 provinces exceeded the national five-year growth rate, between 1981 and 1986, in the 1986 Census. Alberta led the way with a growth rate of 6.1%, although this is significantly lower than the rate of 21.7% registered during the 1976-81 period. The growth rate in Alberta was primarily due to a much higher than average rate of natural increase (excess of births over deaths). This natural increase, together with migration from abroad, more than counter-balanced a net out-migration of persons to other provinces.

Ontario followed a close second, with a growth rate of 5.7%, up slightly from its rate of increase over the 1976-81 period. In fact, Ontario was the only province east of Manitoba to experience a growth rate above the national average.

In the West, British Columbia, Manitoba and Saskatchewan also all exceeded the national growth rate with 5.3%, 4.4% and 4.3%, respectively. Comparable rates for the 1976-81 period showed British Columbia had an increase of 11.3%, Manitoba, 0.5%, and Saskatchewan, 5.1%.



Chart 2.1

**Population growth rate, 1976-86**

Between 1981 and 1986, Saskatchewan's population increased by 41,885, breaking the one-million population barrier for the first time. Saskatchewan is the sixth province with a population over one million.

Of the 10 provinces, Manitoba experienced the largest increase in growth rate, from 0.5% between 1976 and 1981 to 4.4% between 1981 and 1986.

Quebec registered a population growth rate of 1.6%, the second smallest growth rate among the 10 provinces. This was a decline from a level of 3.3% experienced during the 1976-81 period. Newfoundland had the lowest growth rate, at 0.1%.

The Yukon Territory experienced a population growth rate of 1.5%, a significant decline from the 6.0% registered during the 1976-81 period. The Northwest Territories, however, experienced an increase of 14.2% during 1981-86, up from 7.4% during the 1976-81 period.

## 2.4 Population redistribution

One effect on the differences in provincial growth has been a continued redistribution of Canada's population over the last 25 years.

British Columbia, in experiencing growth rates consistently higher than the national average, had an 11.4% share of the population in 1986, up from

8.9% in 1961. Alberta accounted for 9.4% of Canada's population, up from 7.3% in 1961. The principal cause of these higher than average growth rates has been international and interprovincial migration.

Although Alberta has experienced an increase, both Manitoba and Saskatchewan recorded a smaller proportion of the population, leaving the Prairie region as a whole almost unchanged from its 1961 level, with 17.6% of Canada's population.

Ontario had 35.9% of Canada's population in 1986, up from 34.2% in 1961. Its share of the total population increased slightly between 1981 and 1986, following a decline during the previous five years.

Both the Atlantic provinces and Quebec showed continued declines in their share of the population. Quebec's share of 25.8% of the population in 1986 was down 3.0% from its 1961 level, while the Atlantic provinces accounted for 9.0% of Canada's population, down from a 1961 level of nearly 10.4%.

## 2.5 Metropolitan areas

The average growth rate of Canada's 25 Census Metropolitan Areas was 5.9%, as recorded in the 1986 Census, notably above the national average.

Saskatoon ranked first among Canada's Census Metropolitan Areas, with a population growth rate of 14.6% during the 1981-86 period.

In terms of growth rate, Ottawa-Hull ranked second with a growth rate of 10.1%, followed by Toronto with 9.5%.

The metropolitan areas of Calgary and Edmonton, which experienced very substantial growth rates of 33.2% and 33.7% during the 1976-81 period, grew by 7.2% and 6.0%, respectively, between 1981 and 1986.

Toronto, Montreal and Vancouver continue to be Canada's three largest metropolitan areas with populations in excess of one million. Together they comprised 7.7 million people or 30.5% of Canada's population in 1986.

A preliminary analysis of the growth in these three Census Metropolitan Areas indicates a resurgence in the growth of their central cities.

While the cities of Toronto, Montreal and Vancouver continued to grow at a slower rate than the surrounding municipalities of the metropolitan areas, these three central cities continued to show the turnaround in population growth that was first observed in the 1981 Census.

For the 1981-86 period, Toronto showed an increase of just over 2%. This compares to a decrease of 5% during the 1976-81 period and an even larger decrease of 11% during the 1971-76 period.

In the case of the city of Montreal, the population showed little change between 1981 and 1986, compared to declines of about 10% in each of the periods 1976-81 and 1971-76.

Vancouver showed an increase of just over 4% for the 1981-86 period, up from about 1% during 1976-81 and a decline of 4% during the 1971-76 period.

## 2.6 Municipalities

Among Canada's 144 municipalities with populations in excess of 25,000, 68 experienced rates of growth above the national average, recorded in the 1986 Census, with the strongest occurring in suburban municipalities surrounding major centres.

Vaughan, Ont., near Toronto, was the fastest growing large municipality, more than doubling its population by adding over 35,000 people. Cumberland, Ont., near Ottawa, ranked a distant second with a population growth rate of 66.9%. Nine of the 10 fastest growing municipalities were located in Ontario.

Municipalities experiencing the largest rates of population decline were found primarily in resource or one-industry-based regions. Sept-Îles, Que., registered the largest percentage decline in its population, at 12.4%.

Calgary is now Canada's second largest municipality. Montreal continued to occupy top spot as Canada's largest municipality, with just over one million people. Calgary, however, switched with Toronto to occupy second position, with a population of just over 636,000.

Mississauga, Ont., ranked ninth in size, experienced the largest absolute increase of just under 59,000 people.

## 2.7 Demographic and social characteristics

### 2.7.1 Shift in age structure and trends

Data from the 1986 Census reflect the continuation of large scale changes in the age distribution of the Canadian population. While the growth rate in the total population has gradually declined over the past quarter century, the rate has varied widely for different segments of the population.

The changes in the age structure reflect the impact of varying birth rates in earlier years, in particular, the "baby boom" of the 1950s and early 1960s, followed by the "baby bust" of the late 1960s and 1970s. As persons born during these periods move through their life-cycle, they have had and will continue to have significant impact on the school system, the labour force, family formation, health care and many other aspects of society.

Another factor contributing to the shift in the age structure is the substantial gain in life expectancy since the mid-1970s. This, in part, explains the large increase in the size of the elderly population. The high growth rate of the elderly population is expected to continue well into the next century. This will have a significant impact on the demand for health and social services.

**Child population stabilizing.** While the decline in the birth rate has resulted in much smaller pre-school and primary school age populations in 1986 compared to 1961, the size of these groups has stabilized during the 1980s.

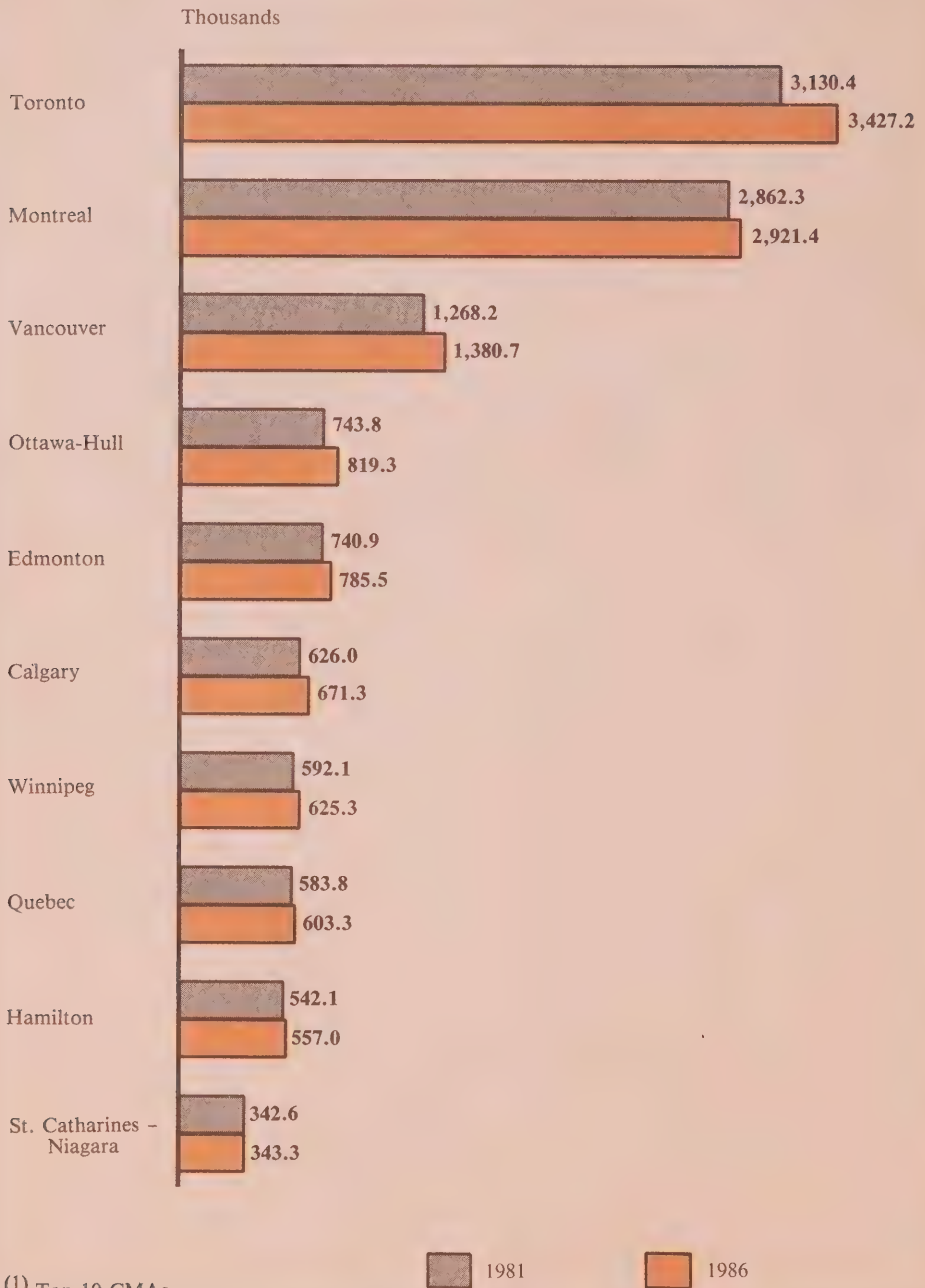
The pre-school population (under six years of age) has in fact increased by nearly 2% over the 1981-86 period, while the primary school age population has decreased by only 3%. These changes are small compared to the declines observed during the "baby bust" and reflect the stabilization in the birth rate during the 1980s.

The stability of this dependent population implies that there will not be additional pressure on the delivery of elementary educational services into the early 1990s.

**Youth population declining.** While the number of people under age 14 has not changed much since

Chart 2.2

**Population of Census Metropolitan Areas<sup>(1)</sup>**





1981, the population aged 14 to 24 has declined significantly. Most persons in this age group were born during the "baby-bust" era of the late 1960s and 1970s when birth rates were dropping rapidly.

Between 1981 and 1986, the secondary school age population (14-18) decreased by 15%, while the youth population (18-24) experienced an 8% drop. These decreases have started, and will continue to exert a downward pull on the number of persons entering the labour market. This is in sharp contrast to the 1960s and 1970s, when the "baby-boomers" entered the labour market in record numbers.

**Adult population continues to increase.** There are one million persons aged 75 or over in Canada and more than half the population is over 30 years of age.

The population aged 20 to 64 continued to increase between 1981 and 1986. This group was 66% larger in 1986 than in 1961 and grew by nearly 8% during the 1981 to 1986 period. In 1986, 56% of this general working age population were 35 years of age or older. In future years, as the "baby-boomers" move into their 40s and beyond, the working age population will become increasingly concentrated in the older age groups.

The population aged 65 and over has grown from 1.4 million in 1961 to 2.7 million in 1986, a rate of increase more than twice that of the population as a whole. The numbers of those 75 years of age and older increased at an even higher rate. In 1986, there were just over one million persons aged 75 and over, more than double the number in 1961.

The aging of the population is clearly reflected in the fact that the median age of the Canadian population is now the highest in history. In 1986, the median age of the population was 31.6 years, up from 29.6 in 1981 and 26.3 in 1961.

In 1986, nearly 11% of the population were 65 years of age and older compared to less than 8% in 1961. In contrast, in 1986, 21% of Canadians were under 15 years of age compared to 34% in 1961.

British Columbia had the highest median age (33 years) in 1986, followed by Ontario and Quebec with median ages of 32 years. At the other extreme, the Northwest Territories had by far the youngest population (median age of 24 years), followed by Newfoundland with a median age of 28 years and Alberta and the Yukon with median ages of 29 years.

**Women outnumber men among seniors.** In 1961, there were 106 women aged 65 and over for every 100 men in the same age group. By 1986 the ratio had jumped to 138 women for every 100 men.

The gap between the number of males and females increases with age so that for the population 85 years of age and older, women outnumbered men by more than two to one in 1986.

This imbalance between females and males among seniors is due to differences in longevity, with women outliving men an average of seven years.

**More single young adults.** Young adults are tending to marry at a later age. As a result, the proportion of single persons aged 20 to 34 continued to increase between 1981 and 1986.

Among females 20 to 24 years of age, 60% were single in 1986, compared to 40% in 1961 and 51% in 1981. Similar patterns have been observed for women in the 25 to 34 year age groups, as well as among males.

These trends explain, in part, the lower rates of family formation, the lower fertility rates and the increase in one-person households in recent years.

### 2.7.2 Language

At the time of the 1986 Census, 15.3 million persons, or 61% of the population of Canada, reported English as their only mother tongue; 6.2 million, or 24% of the population, reported French as their only mother tongue; and 2.9 million, or 11% of the population, reported a language other than English or French as their only mother tongue. (First language learned and still understood.)

To better reflect the linguistic reality in Canada, the 1986 Census was the first Census in which Canadians could indicate more than one mother tongue, if the mother tongues had been learned simultaneously and were spoken as frequently during childhood. Nearly one million persons, or a little less than 4% of the population, reported having more than one mother tongue. The distribution of these responses was as follows: English and French, 333,000; English and language(s) other than French, 526,000; French and language(s) other than English, 36,000; English, French and other language(s), 47,000; and more than one language other than English and French, 14,000.

The existence of multiple responses makes comparing 1986 Census results with those of the previous Censuses difficult.

The proportion of Francophones in Canada and the proportion of Anglophones in Quebec continue to decline. However, because of this change between 1981 and 1986 data, it is difficult to accurately estimate the variations in the linguistic composition of the population from 1981 to 1986.

The drop in the percentage of persons with French as their mother tongue began in 1951. The French-language group then accounted for 29% of the Canadian population, compared with approximately 25% in 1986. In Quebec, the percentage of persons with English as their mother tongue has been falling since 1941. (This was the year of the first Census from which we have data that can be compared with today's data.) This

group accounted for 14% of the province's population in that year, compared with approximately 10% at the time of the last Census.

In Quebec, the proportion of Francophones changed little between 1981 and 1986. In the last Census, 5.3 million persons, or 81% of the population, reported that French was their only mother tongue.

In most provinces other than Quebec, there has been a downward trend in the proportion of the Francophone population since 1981, continuing a trend from previous Censuses. However, the proportion seems to have remained the same in New Brunswick, while rising in the Yukon and the Northwest Territories. In New Brunswick, when the multiple responses given in 1986 are allocated among the various languages as in 1981, the proportion of persons with French as their mother tongue shows little change. Francophones accounted for a third of the population of New Brunswick. Outside of Quebec, Ontario had the largest number of persons with French as their only mother tongue (425,000 in 1986). These persons accounted for a little less than 5% of the population of that province.

Overall, the size of French-language minorities in the country decreased between 1981 and 1986. In 1986, 843,000 persons living outside Quebec indicated French as their only mother tongue. During the same period, in Quebec, the number of persons with English as a mother tongue also fell, continuing the trend that began in the mid-1970s. In 1986, 580,000 persons reported English as their only mother tongue.

In the 1986 Census, 2.9 million persons, or a little more than 10% of the Canadian population, reported having a single mother tongue other than English or French. Of these persons, 2.1 million indicated a language of European origin, 634,000 a language of Asian or Middle Eastern origin, 138,000 an aboriginal language and 13,000 a language of another origin. (Origin means the geographical region where a language came into being. Persons who report that language may actually come from another region.)

Linguistic diversity in Canada is greater today than it was 25 years ago. Since then, the population whose mother tongue is of Asian or Middle Eastern origin — mainly Chinese, Vietnamese, Punjabi, Hindi and Urdu — has grown considerably. On the other hand, there was little change from 1961 to 1986 in the number of persons who indicated a language of European origin, although there have been changes within this group. For example, the number of persons with Spanish as their mother tongue is larger now than it was 25 years ago, while the number with German or Ukrainian as their

mother tongue has decreased. Overall, the proportion of the population reporting a mother tongue other than English and French has changed little in 25 years.

In 1986, the proportion of the population for which the only mother tongue was neither English nor French varied a great deal from one region of the country to another: this group made up less than 2% of the population in the Atlantic provinces, 6% in Quebec, 15% in Ontario, 19% in Manitoba, 13% in Saskatchewan, 13% in Alberta, 14% in British Columbia and 7% in the Yukon. The Northwest Territories reached 40%; most of these persons reported Inuktitut as their mother tongue.

**Collection of data on mother tongue.** The following is an overview of some changes made in data collection and a description of the analytical methods used to determine the trends.

*Data collection.* The question on mother tongue was the same in the last two Censuses, but the instructions to respondents were modified. In 1981, the respondents were asked to indicate only one language, nevertheless, 597,980 persons reported more than one. This instruction was dropped from the 1986 Census. Under the new instructions, people could indicate two mother tongues if they had learned them at the same time and had spoken one as frequently as the other when they were children.

The number of multiple responses given in the 1986 Census was significantly higher than the number given in the 1981 Census. This increase may have resulted from changes made in the questionnaire, changes in the way the population answers language questions or an increase in the number of persons who learned more than one language as a mother tongue. In 1986, 954,940 persons provided a multiple response.

When the 1981 data were processed, only one language was retained, even in cases where the respondent reported more than one. In 1986, responses indicating more than one language were accepted.

*Comparison between 1981 and 1986.* In order to facilitate the determination of the trends between 1981 and 1986, two methods of comparison were established. In the 1986-based method, the presentation of the data from the 1981 Census shows the multiple responses obtained at that time. In the 1981-based method, the results of the 1986 Census were adjusted, based upon the methods used in 1981; in cases where several languages were reported, the multiple responses were distributed among the component languages.

These adjustments make it easier to relate the 1986 data to the 1981 data, but do not make the results of the two Censuses entirely comparable.

Generally, the two methods reveal similar trends. For New Brunswick, the results obtained using the second method indicate that the size of the French-language group grew and that its proportion did not change between 1981 and 1986.

### 2.7.3 Religious denominations

Information on religious denominations was not requested in the 1986 Census. The following statistics are from the previous Census.

In 1981 the 11.4 million Catholics formed 47.3% of the population and 9.9 million Protestants, 41.2%. The remaining population was divided among those with no religious preference, 7.4%, Eastern Orthodox, 1.5%, Jewish, 1.2% and other small groups, 1.3%.

Two provinces were predominantly Catholic, Quebec with 88.2% of its population and New Brunswick with 53.9%. All other provinces had a Protestant majority.

Nearly 1.8 million persons who reported themselves as having no religious preference showed an increase in proportion in this category by 90% between 1971 and 1981.

One-half of persons of Jewish religion lived in Ontario, where they numbered 148,255 or 1.7% of the population. Another one-third or 102,355 were in Quebec, where they accounted for 1.6% of the population.

Buddhists recorded the largest 10-year increase among religious groups, up 223% to 51,955. Pentecostals had the second largest rate of growth, increasing 54%. Other religious groups increasing since 1971 included Mormons, up 36%; Roman Catholics, up 13%; Jewish, up 8%; and the United Church, up 1%. By contrast, Unitarians decreased by 31%; Doukhobors, 27%; Presbyterians, 6%; and Anglicans, 3%.

The Atlantic provinces had the smallest proportion stating no religious preference, ranging from 1% in Newfoundland to 4% in Nova Scotia. This category rose to just over 7% of the population of both Ontario and Manitoba, to 11.7% in Alberta, 20.3% in Yukon and 20.5% in British Columbia. Just over 6% of the people of both Saskatchewan and Northwest Territories reported no religious preference.

## 2.8 Families and households

In 1986 more than four out of five (84%) Canadians lived in families as wives, husbands, lone-parents or children, recorded in the 1986 Census. This proportion was down slightly from 1981, continuing the longer term decline that began in 1966 when just over 88% of the population lived in families.

Though the proportion of Canadians in families has been gradually declining, there has been a slight increase in the number of families, from 6.3 million in 1981 to 6.7 million in 1986. This five-year increase (6%) was moderate compared with earlier years. Between 1971 and 1976, the number of families increased by 13%, while between 1976 and 1981, it increased by 10%.

Recent slower growth in the number of families is due in part to delays in marriage, and also to an aging population now moving past the prime family-forming years. Nevertheless, the rate of increase in families was still greater than the population growth in Canada over the 1981-86 period.

**Family size dropping.** While there are more families in Canada, the typical family is now smaller. Family size has declined since 1961 when the average family size was 3.9 people. Since then, the decline in size has been steady. In 1976, the average family had 3.5 people, in 1981, 3.3, and in 1986, 3.1.

The decline in family size is due mainly to lower fertility rates. For example, in 1986, the average number of children living at home was 1.3, down from 1.4 in 1981 and 1.9 in 1961. The increase in the number of lone-parent families also has contributed to smaller family size. Lone-parent families averaged 2.6 persons per family in 1986, compared to 3.2 persons among husband-wife families.

There has also been a dramatic growth in families with no children at home. (These may either be childless families, or families where grown children have left home.) In 1986, there were 2.2 million such families, or close to a third of all families. This represented a 9% increase over 1981, and far outpaced the growth of families with children at home (5%).

**Families with children still in the majority.** While the number of childless families has increased, close to 70% of Canada's families have children at home. In 1986, there were 4.5 million families with children. Moreover, four out of five of these families were the traditional husband-wife-child(ren) families.

Although lone-parent families are considerably fewer in number than these traditional families, they have been increasing at a much faster rate. Between 1981 and 1986, there was a 20% increase in their numbers. In 1986, they represented 13% of all families, up from 11% in 1981.

While the majority (80%) of lone-parent families were headed by women, there has been a slightly more rapid increase in the number of male lone-parents. Between 1981 and 1986, lone-parent families headed by men increased by 22%, following a 31% increase between 1976 and 1981. This compares to increases of 19% during 1981-86 and 27% during 1976-81 for lone-parent families headed by women.



**Families with young children.** At the time of the 1986 Census, there were 1.3 million husband-wife families and 175,485 lone-parent families with children under six years of age. Together, these families with young children made up 22% of all families in Canada.

While the growth in the pre-school population has been slow, a continuing increase in the participation of young mothers in the labour force may see the current demand for day care facilities maintained. Labour force data from the 1986 Census will enable trends in the work patterns of young mothers to be analyzed further.

**Households and living arrangements.** Between 1981 and 1986, the number of private households in Canada increased twice as fast as the population. In 1986, there were 8.9 million households, up 9% from 1981. In the same period, the country's population increased by only 4%. However, the rate of increase for households has actually declined significantly. Between 1976 and 1981, the number of households increased by 16%, compared to 9% between 1981 and 1986.

In Canada, an increasing number of people are living alone. In 1961, less than 10% of all private households were one-person households. By 1986, the 1.9 million people living alone made up 21% of all private households.

Factors contributing to the growth in the number of one-person households are the aging of the population and increases in marriage breakdown. In the latter case, while most divorced persons eventually remarry, they do swell the ranks of those living alone, if only temporarily. In the former case, differences in mortality rates, with wives outliving their husbands, have continued to result in a rising number of elderly widows living alone.

More and more Canadians are living as husband and wife outside the bounds of formal marriage. Since 1981, there has been a 38% increase in the number of reported common-law unions. In 1986, 8% of all couples, about 487,000 families, reported that their union was common-law. In 1981, 6% of all couples, or about 352,000, reported living in such unions.

There were fairly wide regional variations in the incidence of such unions. The highest proportions of common-law couples were to be found in the Yukon (20%) and the Northwest Territories (17%). Among the provinces, 13% of couples in Quebec were living common-law, while in Newfoundland and Prince Edward Island, less than 5% of all couples were not formally married.

Close to 2.7 million people in Canada were 65 years of age and over in 1986. Of these, 91% were living in private households while 9% lived in nursing homes, other institutions and establishments. A total of 25% of the elderly lived alone.

There are significant differences in living arrangements among the elderly in Canada. In the 65 to 74 year age group, only 3% were living in nursing homes and other institutions. Almost two-thirds of this age group lived in families (with their spouses or perhaps with unmarried children). About 22% lived alone and 7% lived with other relatives.

The population 75 years and over, a rapidly growing group, has quite a different pattern of living arrangements. For example, 17% of those 75 years and over lived in nursing homes or other institutions. The proportion of those living alone increased to 30%; 38% lived with a spouse or unmarried children; and 12% were living with other relatives.

## 2.9 The vital components

Vital statistics are an indispensable tool to the measurement and interpretation of population change. They provide information such as the rate at which men and women marry and have children, marriages are contracted or dissolved, and population increases due to births and decreases due to deaths. The statistics are derived from the records of events of births, deaths, marriages and divorces registered in the provinces and territories.

**History of vital statistics.** Historically, vital statistics data for Canada and the provinces go back to 1921. These can be obtained from a variety of periodic publications as well as from the repository of unpublished tabulations at the vital statistics and health status section of health division, Statistics Canada.

**Summary of principal data.** Table 2.24 provides a summary of the principal vital statistics for Canada, the provinces and territories.

### 2.9.1 Births

Of all the demographic factors which produce changes in population (fertility, mortality, natality, immigration, emigration), none exerts greater influence than the rate of reproduction or fertility.

**Birth rates.** Accurate figures on Canadian crude birth rates have been available since 1921 when the annual collection of official national figures was initiated. The following estimates of the average annual crude rates of live births (per 1,000 total population) for each 10-year intercensal period between 1851 and 1921 may be inferred from studies of early Canadian Census data: 1851-61, 45; 1861-71, 40; 1871-81, 37; 1881-91, 34; 1891-1901, 30; 1901-11, 31; 1911-21, 29.

The annual crude birth rates declined steadily from 29.3 in 1921 to a low of 20.1 in 1937, recovered

somewhat in the late 1930s and rose slightly during the period of World War II to 24.3 in 1945. Following the War the rate rose to a high of 28.9 in 1947. Between 1948 and 1959 it remained remarkably stable at between 27.1 and 28.5, but has since declined dramatically to a record low of 15.6 by 1974. The rate increased slightly for the next few years and then declined to 15.3 in 1981, to 15.0 in 1983 and 14.8 in 1985. Provincial rates have followed this trend with some regional differences.

Since these crude birth rates are based on the total population they do not reflect the true fertility of the women in reproductive ages. A more accurate measure of fertility is one based on births to the number of women by age between the ages of 15 and 49 (Table 2.26).

**Stillbirths.** The 1,972 stillbirths of at least 28 weeks gestation reported in 1981 represented a ratio of 5.3 for every 1,000 live births (Table 2.25). The ratio declined to 4.9 in 1983 and to 4.3 in 1985. The stillbirth ratio has been cut by more than half over the past quarter-century. The risk of having a stillborn child increases with the age of the mother. Although stillbirth rates for mothers of all ages have been declining, they continue to be much higher for older than for younger mothers.

### 2.9.2 Fertility rates

Since almost all children are born to women between the ages of 15 and 49, variations in the proportion of women in this age group to the total population will cause variations in the crude birth rate of different countries, or of different regions, even though the actual rates of reproduction or fertility of the women may be the same. It is therefore an accepted practice for comparison purposes to calculate age-specific fertility rates, the number of infants born annually to every 1,000 women in each of the age groups in the reproductive span.

Table 2.26 indicates that women in their 20s are the most reproductive. On the average, for every 1,000 women between 20 and 24, there were 85 infants born during 1985. The highest rate is found in the 25-29 age group with an average of 125 for every 1,000. Another measure of fertility is the gross reproduction rate which represents the average number of daughters that would be born to each woman throughout her child-bearing ages (15 to 49) if the fertility rate of the given year remained unchanged during the whole of her child-bearing period. A rate of 1.000 indicates that, on the basis of current fertility and without making any allowance for mortality among mothers during their child-bearing years, the present generation of child-bearing women would maintain itself.

Canada has had one of the highest gross reproduction rates among industrialized countries.

Even at low birth rates in the 1930s, the rate varied between 1.300 and 1.500 and since World War II has ranged from 1.640 in 1946 to a high of 1.915 in 1959. However, since 1963 the national gross reproduction rate has dropped to 0.829 in 1981, to 0.816 in 1983 and to 0.811 in 1985, appreciably below the replacement level of 1.050. Among the provinces, the 1985 gross reproductive rates were below replacement level for all except Saskatchewan (1.007). The 1985 rates were lowest for the provinces of Quebec and New Brunswick.

### 2.9.3 Natural increase

The excess of births over deaths, or natural increase, has been the main factor in the growth of Canada's population. Some idea of the rate of natural increase back to the mid-1800s may be obtained from the estimates of births and deaths which produce the following natural increase rates (per 1,000 population): 1851-61, 23; 1861-71, 19; 1871-81, 18; 1881-91, 16; 1891-1901, 14; 1901-11, 18; 1911-21, 16.

During the 1920s and early 1930s the birth rate declined much more rapidly than the death rate and the natural increase rate dropped to a record low of 9.7 in 1937. Higher birth rates during the 1940s and 1950s and a continued declining death rate caused the natural increase rate to rise steadily from 10.9 in 1939 to a record 20.3 in 1954. After that there was a steady drop due to declining birth rates and the natural increase rate fell below 10 for the first time in 1971 at 9.5 and dropped further to 8.0 in 1974. It edged up slightly in 1976 to 8.4, but fell to 8.2 in 1981, to 8.0 in 1983 and to 7.7 in 1985. Table 2.24 gives average rates of natural increase in the provinces and territories.

### 2.9.4 Deaths

The Canadian crude death rate is one of the lowest in the world (7.2 per 1,000 population in 1985). After a gradual decline over the past century, the rate has levelled off since 1967. In the opinion of demographers, a further reduction in the crude death rate is likely to be small. However, the sustained aging of the population due to continued declines in fertility may cause some increases in the death rate in future years.

**General and infant mortality.** No official crude death rates (rates per 1,000 total population) are available prior to 1921. However, studies of the early Canadian Censuses resulted in the following estimated annual crude rates: 1851-61, 22; 1861-71, 21; 1871-81, 19; 1881-91, 18; 1891-1901, 16; 1901-11, 13; 1911-21, 13.

Typical of pioneer populations, Canada had high death rates in the mid-1800s with the crude death rate estimated between 22 and 25. It is

assumed that while mortality was high at all ages, the rate among infants and children must have been particularly high. Even in 1921 the Canadian infant mortality rate was 102.1 per 1,000 live births. With increasing urbanization and improved sanitation and medical services, the infant mortality rate declined to 10.4 in 1981, less than one-tenth the 1921 level. It further declined to 8.6 in 1983 and to 7.9 in 1985. The crude death rate dropped by 50%, from 22 to 11, between 1851 and 1930. It continued to decline to a low of 7.3 in 1970 and 1971, fluctuating slightly for a few years and further declining to 7.0 in 1981 and 1983 with slight increase to 7.2 in 1985.

### 2.9.5 Marriages

In 1985, there were 184,096 marriages solemnized in Canada compared to 191,069 in 1980. The rate of marriages (marriages per 1,000 population) declined from 8.0 in 1980 to 7.3 in 1985. Alberta recorded a marriage rate of 8.4 in 1985 and continued to have the highest rate of any province (Table 2.27).

In 1985, the median age at marriage for persons never previously married — the age above and below which half the marriages occurred — was 25.6 for bridegrooms and 23.7 for brides. Bridegrooms averaged 26.7 years, and brides, 24.6.

### 2.9.6 Divorces

The number of decrees absolute granted in Canada has risen sharply as a result of the 1968 changes in divorce legislation. Divorces rose to 70,436 in 1982 from an average of about 11,000 divorces per year over the period 1966-68. The number of annual divorces declined to 68,567 in 1983 and to 61,980 in 1985. The divorce rate per 100,000 population declined from 285.9 in 1982 to 275.5 in 1983 and to 244.4 in 1985. Of all the provinces, as for the past years, the 1985 divorce rates were highest for Alberta (344.9) and British Columbia (288.0) and lowest for Newfoundland (96.6) and Prince Edward Island (167.6).

**Sex of petitioners.** In 1985, more female petitioners (39,093) than males (22,887) were granted divorces in Canada. This represents a ratio of 58 divorces to male petitioners for every 100 to females.

**Grounds for divorce.** According to 1985 statistics, the alleged main grounds for divorce in descending order were: separation for not less than three years (25,948 cases), adultery (22,613 cases), mental cruelty (17,969 cases), physical cruelty (10,811 cases), addiction to alcohol (880 cases) and desertion by petitioner not less than five years (727 cases). Of the 61,980 divorces granted during 1985, 48.5% involved no dependent children; another 22.1% involved one dependent child, 21.9% two dependent children and the remaining 7.5%, three or more dependent children.

**Duration of marriage.** The duration of marriage was less than five years for 15.9% and less than 10 years for 45.4% of the total divorces. For persons divorced in 1985, the median age at marriage was 21.4 years for females and 23.7 years for males and at divorce was 34.1 years for females and 36.7 years for males.

**Marital status.** In 1985, 88% of persons granted divorce were involved in first divorce. Over 10% of the divorces related to persons who were already divorced at the time of their last marriage and just more than 1% to those who were widowed.

## 2.10 Migration

### 2.10.1 Immigration

Canada's immigration policy is based on the principle of non-discrimination and emphasizes the selection of immigrants who are likely to adapt to the Canadian way of life, making a positive contribution to economic and cultural development in Canada.

Canadian immigration officers apply standard norms of assessment to applicants from all parts of the world and, apart from sponsored relatives and refugees, select those with skills in short supply in Canada or whose skills could contribute to the development of Canada.

Employment and Immigration Canada (EIC) also regulates the entry of temporary workers and foreign students planning to enrol in public or private institutions and examines millions of visitors who come to Canada each year as tourists or for family, social, cultural or other reasons. EIC facilitates the return of Canadian residents and enforces measures to protect the health, welfare and security of Canadians.

**The Immigration Act, 1976**, proclaimed in April 1978, brought Canada's immigration policy into sharper focus than ever before. It stated, for the first time in Canadian law, the basic principles underlying immigration policy — non-discrimination, family reunion, humanitarian concern for refugees, demographic concerns and promotion of national goals. The act links the immigration movement to Canada's population and labour market needs and, after consultation with the provinces, provides for an annual forecast of the number of immigrants Canada can comfortably absorb. It established a new family class, allowing Canadian citizens and permanent residents to sponsor a wide range of relatives, confirmed Canada's protective obligations to refugees under the United Nations Convention and established refugees as an admissible immigrant class. It required that immigrant and visitor visas and student and employment authorizations be obtained abroad, prohibiting visitors from changing their status from within Canada.



Chart 2.3  
Marriages and divorces, 1975 and 1985

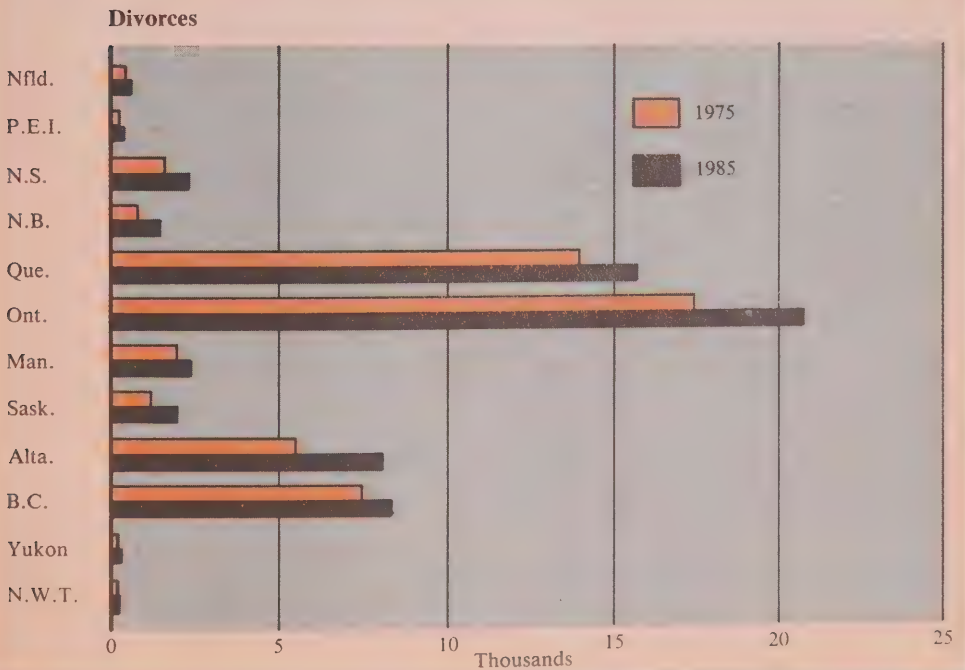
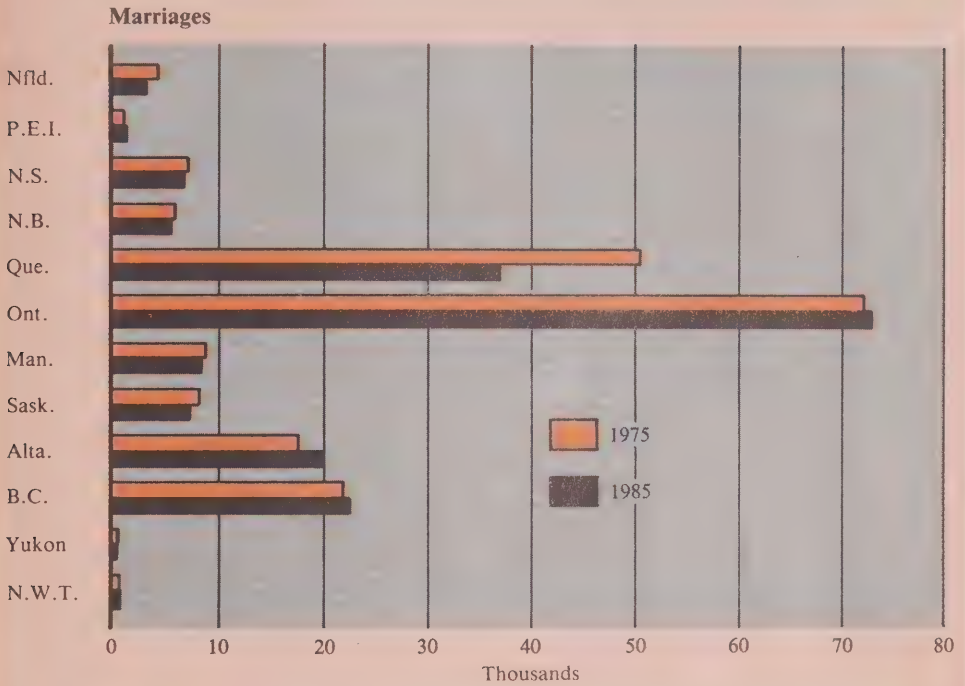
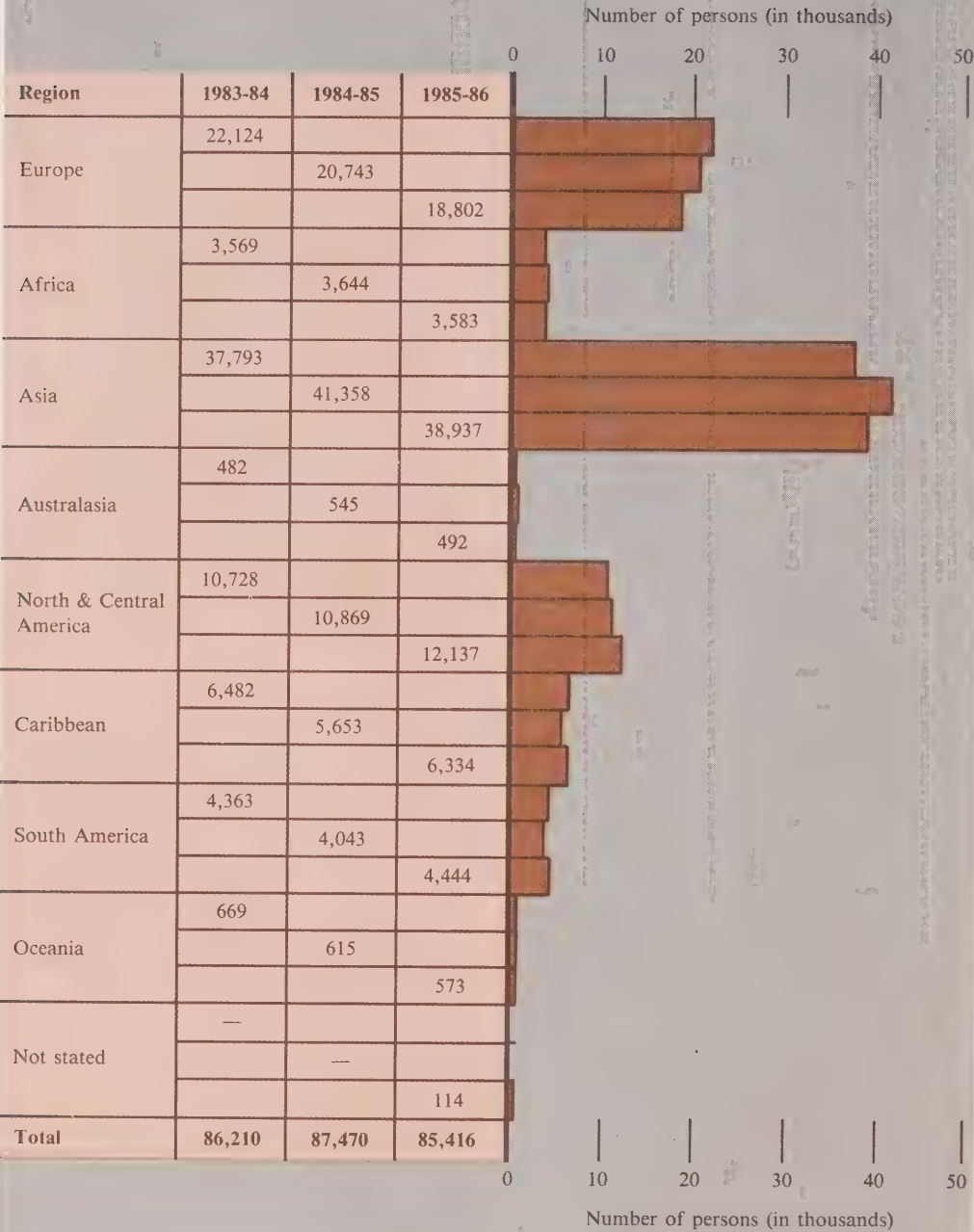


Chart 2.4  
Origin of immigrants



Note: Fiscal year ending March 31.

Canada's refugee policy includes two major elements, resettlement and protection. Traditionally, permanent residence has been provided for the displaced and persecuted when other solutions to refugee problems were not possible. The size and scope of the resettlement program are determined through an annual refugee plan approved by Cabinet. As a complement to the plan, humanitarian assistance is extended to others who are displaced or in need due to emergency situations.

The Immigration Act contains provisions to respond to persons who, while temporarily in Canada, claim refugee status. Those recognized as convention refugees can be afforded Canada's protection. In May 1986, the government announced principles on revisions to this determination process.

Through both refugee and humanitarian programs, 19,885 people were helped to resettle in Canada in 1985.

The immigration program is delivered at more than 60 Canadian embassies and consulates abroad and at more than 400 ports of entry to Canada and Canada immigration centres.

The extent of immigration to Canada in any period is affected by conditions at home and abroad. The Immigration Act requires the Minister, after reviewing domestic economic and demographic trends, to announce annually the number of immigrants Canada plans to admit over a specified period. The announced level for 1986 was 105,000 to 115,000. Immigrant arrivals for the years 1982-85 are shown in Table 2.35.

**Origin of immigrants.** In 1985, Canada received 84,302 immigrants from various countries of origin, down from 88,239 in 1984. Tables 2.35 and 2.36, show the country of last permanent residence and of citizenship of immigrants. Immigrants from Asia constituted 45.8% of the influx in 1985. Immigration from Europe was 22.4%. The major source countries were: Vietnam (12.3%), Hong Kong (8.8%), United States (7.9%), Great Britain (5.3%) and India (4.8%).

**Destination of immigrants.** On arrival in Canada, immigrants are asked to state their intended destination. According to these records, Ontario absorbed by far the highest number of arrivals during 1985 (40,730). Quebec received 14,884 immigrants

and British Columbia, 12,239. The Prairie provinces received 14,321 immigrants, the Maritimes, 2,021 and Yukon and Northwest Territories, 107.

**Sex, age and marital status.** The sex distribution of immigrants for 1982-85 is shown in Table 2.38. In 1985 females constituted 52.2% of the immigrants and males 47.8%. Table 2.39 gives the marital status of immigrants by sex for 1982 and 1983 and by age groups for 1984 and 1985.

### 2.10.2 Citizenship

In 1981, 20.2 million or 84% of the Canadian population were Canadian by birth and 2.6 million or 11% of the Canadian population were Canadian by naturalization. From 1981 to 1985, 508,000 landed immigrants applied for and were granted Canadian citizenship.

The Citizenship Act came into effect on February 15, 1977. It replaced the Canadian Citizenship Act, passed in 1947, which was the first independent naturalization law to be enacted in the Commonwealth and which created the status of a Canadian citizen as distinct from that of a British subject.

The current Citizenship Act makes equality a basic tenet of the law. It makes no distinction between citizens by birth and citizens by choice. It also treats the citizenship status of women in their own right rather than simply in relation to that of their spouses.

Administered by the Department of the Secretary of State, through 30 citizenship courts and offices, the act covers the conditions for acquisition, retention, loss and resumption of citizenship. All adult applicants for the grant of citizenship face the same requirements, which include legal admission to Canada; three years residence in Canada; basic knowledge of Canada and of one of Canada's official languages; and compliance with the national security and criminal record provisions of the Citizenship Act. The department administers federal-provincial agreements in support of citizenship and language instruction to adult immigrants and is active in the promotion of the concept and values of Canadian citizenship among the general populace. The 40th Anniversary of the proclamation of the first Canadian Citizenship Act was highlighted by the introduction of National Citizenship Week in April 1987.

### Sources

- 2.1 - 2.8 Census Operations Division, Statistics Canada.
- 2.9 - 2.9.6 Health Division, Statistics Canada.
- 2.10.1 Public Affairs, Department of Employment and Immigration.
- 2.10.2 Promotion and Education, Department of the Secretary of State.



# TABLES

- .. not available

.. not appropriate or not applicable

— nil or zero

-- too small to be expressed
- e estimate

p preliminary

r revised

certain tables may not add due to rounding

All figures of the 1971, 1976, 1981 and 1986 Censuses in Tables 2.10, 2.13 - 2.23 have been subjected to a confidentiality procedure to prevent the possibility of associating small figures with an identifiable individual. The particular technique used is known as random rounding. Under this method, all last or unit digits in a table (including all totals) are randomly rounded (either up or down) to 0 or 5. This technique provides the strongest possible protection against direct, residual, or negative disclosures without adding any significant error to the Census data. However, since totals are independently rounded they do not necessarily equal the sum of individual rounded figures in distributions. Also, minor differences can be expected for corresponding totals and cell values in various Census tabulations.

## 2.1 Population summaries, selected years (thousands)

Province or territory	1961	1971	1976	1981	1986
Newfoundland	458	522	558	568	568
Prince Edward Island	105	112	118	123	127
Nova Scotia	737	789	829	847	873
New Brunswick	598	635	677	696	710
Quebec	5,259	6,028	6,234	6,438	6,540
Ontario	6,236	7,703	8,264	8,625	9,114
Manitoba	922	988	1,022	1,026	1,071
Saskatchewan	925	926	921	968	1,010
Alberta	1,332	1,628	1,838	2,238	2,375
British Columbia	1,629	2,185	2,467	2,744	2,889
Yukon	15	18	22	23	24
Northwest Territories	23	35	43	46	52
Canada	18,238	21,568	22,993	24,343	25,354

## 2.2 Total population growth, Canada, 1851-1986

Census year	Population No.	Increase during intercensal period		Average annual rate of population growth %
		No.	%	
1851	2,436,297	...	...	...
1861	3,229,633	793,336	32.6	2.9
1871	3,689,257	459,624	14.2	1.3
1881	4,324,810	635,553	17.2	1.6
1891	4,833,239	508,429	11.8	1.1
1901	5,371,315	538,076	11.1	1.1
1911	7,206,643	1,835,328	34.2	3.0
1921	8,787,949	1,581,306	21.9	2.0
1931	10,376,786	1,588,837	18.1	1.7
1941	11,506,655	1,129,869	10.9	1.0
1951 <sup>1</sup>	14,009,429	2,502,774	21.8	1.7
1956	16,080,791	2,071,362	14.8	2.8
1961	18,238,247	2,157,456	13.4	2.5
1966	20,014,880	1,776,633	9.7	1.9
1971	21,568,311	1,553,431	7.8	1.5
1976	22,992,604	1,424,293	6.6	1.3
1981	24,343,181	1,350,577	5.9	1.1
1986	25,354,064	1,010,883	4.2	0.8

<sup>1</sup> Newfoundland included for the first time. Excluding Newfoundland, the increase would have been 2,141,358 or 18.6%.

2.3 Components of population growth, Canada<sup>1</sup>, 1851-1981

Period	Total population growth '000	Births '000	Deaths '000	Natural increase '000	Ratio of natural increase to total growth %	Immi- gration '000	Emi- gration <sup>2</sup> '000	Net mi- gration '000	Ratio of net mi- gration to total growth %	Population at the end of the Census period '000
1851-1861	793	1,281	670	611	77.0	352	170	182	23.0	3,230
1861-1871	460	1,370	760	610	132.6	260	410	-150	-32.6	3,689
1871-1881	636	1,480	790	690	108.5	350	404	-54	-8.5	4,325
1881-1891	508	1,524	870	654	128.7	680	826	-146	-28.7	4,833
1891-1901	538	1,548	880	668	124.2	250	380	-130	-24.2	5,371
1901-1911	1,835	1,925	900	1,025	55.9	1,550	740	810	44.1	7,207
1911-1921	1,581	2,340	1,070	1,270	80.3	1,400	1,089	311	19.7	8,788
1921-1931	1,589	2,420	1,060	1,360	85.5	1,200	970	230	14.5	10,377
1931-1941	1,130	2,294	1,072	1,222	108.1	149	241	-92	-8.1	11,507
1941-1951 <sup>3</sup>	2,503	3,212	1,220	1,992	92.3	548	382	166	7.7	14,009
1951-1956	2,071	2,106	633	1,473	71.1	783	185	598	28.9	16,081
1956-1961	2,157	2,362	687	1,675	77.7	760	378	482	22.3	18,238
1961-1966	1,777	2,249	731	1,518	85.4	539	280	259	14.6	20,015
1966-1971	1,553	1,856	766	1,090	70.2	890	427	463	29.8	21,568
1971-1976	1,424	1,758	823	934	65.6	841	352	489	34.4	22,993
1976-1981	1,288	1,820	842	978	75.9	588	278	310	24.1	24,343

<sup>1</sup> Includes Newfoundland since 1951.  
<sup>2</sup> Emigration figures are estimated by the residual method.  
<sup>3</sup> Data on growth components shown for 1941-51 were obtained by including data for Newfoundland for 1949-50 and 1950-51 only.

2.4 Percentage change of population, intercensal periods

Province or territory	Percentage change				
	1961-66	1966-71	1971-76	1976-81	1981-86
Newfoundland	7.8	5.8	6.8	1.8	0.1
Prince Edward Island	3.7	2.9	5.9	3.6	3.4
Nova Scotia	2.6	4.4	5.0	2.3	3.0
New Brunswick	3.2	2.9	6.7	2.8	2.0
Quebec	9.9	4.1	3.4	3.3	1.6
Ontario	11.6	10.7	7.3	4.4	5.7
Manitoba	4.5	2.6	3.4	0.5	4.4
Saskatchewan	3.3	-3.0	-0.5	5.1	4.3
Alberta	9.9	11.3	12.9	21.7	6.1
British Columbia	15.0	16.6	12.9	11.3	5.3
Yukon	-1.7	27.9	18.8	6.0	1.5
Northwest Territories	25.0	21.1	22.4	7.4	14.2
Canada	9.7	7.8	6.6	5.9	4.2

2.5 Total population, Canada and provinces, Census years (thousands)

Year	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT	NWT	Canada
1921	—	88.6	523.8	387.9	2,360.5	2,933.7	610.1	757.5	588.5	524.6	4.1	8.1	8,787.4
1931	—	88.0	512.8	408.2	2,874.7	3,431.7	700.1	921.8	731.6	694.3	4.2	9.3	10,376.7
1941	—	95.0	578.0	457.4	3,331.9	3,787.7	729.7	896.0	796.2	817.8	5.0	12.0	11,506.7
1951	361.4	98.4	642.6	515.7	4,055.7	4,597.6	776.5	831.7	939.5	1,165.2	9.1	16.0	14,009.4
1956	415.1	99.3	694.7	554.6	4,628.4	5,404.9	850.0	880.7	1,123.1	1,398.5	12.2	19.3	16,080.8
1961	457.9	104.6	737.0	597.9	5,259.2	6,236.1	921.7	952.2	1,332.0	1,629.1	14.6	23.0	18,265.3
1966	493.4	108.5	756.0	616.8	5,780.8	6,960.9	963.1	955.4	1,463.2	1,873.7	14.4	28.7	20,014.9
1971	522.1	111.6	789.0	634.6	6,027.8	7,703.1	988.2	926.2	1,627.9	2,184.6	18.4	34.8	21,568.3
1976	557.7	118.2	828.6	677.3	6,234.5	8,264.5	1,021.5	921.3	1,838.0	2,466.6	21.8	42.6	22,992.6
1981	567.7	122.5	847.4	696.4	6,438.4	8,625.1	1,026.2	968.3	2,237.7	2,744.5	23.2	45.7	24,343.2
1986	568.3	126.6	873.2	710.4	6,540.3	9,113.5	1,071.2	1,010.2	2,375.3	2,889.2	23.5	52.2	25,354.1

## 2.6 Population of incorporated cities and towns of 50,000 and over

Incorporated city or town	Year of incorporation	1976	1981	1986
Beauport, Que.	1976	55,339	60,447	62,869
Brampton, Ont.	1974	103,459	149,030	188,498
Brantford, Ont.	1877	66,950*	74,315*	76,146
Brossard, Que.	1958	37,641	52,232	57,441
Burlington, Ont.	1915	104,314*	114,853	116,675
Calgary, Alta.	1893	469,917*	592,743*	636,104*
Cambridge, Ont.	1973	72,383	77,183	79,920*
Charlesbourg, Que.	1976	63,147	68,326	68,996
Chicoutimi, Que.	1976	57,737	60,064	61,083*
Dartmouth, NS	1961	65,341	62,277	65,243*
Edmonton, Alta.	1904	461,361*	532,246*	573,982*
Etobicoke, Ont.	1983	297,109	298,713	302,973
Gatineau, Que.	1975	73,479	74,988	81,244
Gloucester, Ont.	1981	56,516	72,859	89,810
Guelph, Ont.	1879	67,538	71,207	78,235
Halifax, NS	1841	117,882	114,594	113,577
Hamilton, Ont.	1846	312,003	306,434	306,728
Hull, Que.	1875	61,039	56,225	58,722
Jonquière, Que.	1976	60,691	60,354	58,467
Kamloops, BC	1973	58,311	64,048	61,773
Kelowna, BC	1973	51,955	59,196	61,213
Kingston, Ont.	1846	56,032	52,616	55,050
Kitchener, Ont.	1912	131,870*	139,734	150,604
LaSalle, Que.	1958	76,713	76,299	75,621
Laval, Que.	1965	246,243	268,335	284,164
Lethbridge, Alta.	1906	46,752	54,072	58,841*
London, Ont.	1855	240,392	254,280	269,140
Longueuil, Que.	1920	122,429	124,329	125,441
Markham, Ont.	1971	56,206	77,037	114,597
Mississauga, Ont.	1968	250,017*	315,056	374,005
Moncton, NB	1973	55,934	54,743	55,468*
Montreal, Que.	1832	1,080,546	980,354	1,015,420*
Montreal N., Que.	1859	97,250	94,914	90,303
Nepean, Ont.	1978	76,947	84,361*	95,490
Niagara Falls, Ont.	1903	69,423	70,960	72,107
North Bay, Ont.	1925	51,639	51,268	50,623
North York, Ont.	1979	558,398	559,521	556,297
Oakville, Ont.	1857	68,950*	75,773	87,107
Oshawa, Ont.	1924	107,023*	117,519	123,651
Ottawa, Ont.	1854	304,462	295,163	300,763
Peterborough, Ont.	1905	59,683	60,620	61,049
Prince George, BC	1915	59,929	67,559	67,621
Quebec, Que.	1832	177,082*	166,474	164,580*
Red Deer, Alta.	1913	32,184	46,393*	54,425
Regina, Sask.	1903	149,593*	162,613	175,064*
Sainte-Foy, Que.	1955	71,237	68,883	69,615
Saint-Hubert, Que.	1958	49,706	60,573	66,218
Saint John, NB	1785	85,956	80,521	76,381*
Saint-Laurent, Que.	1955	64,404	65,900	67,002
Saint-Léonard, Que.	1963	78,452	79,429	75,947
St. Catharines, Ont.	1876	123,351	124,018	123,455
St. John's, Nfld.	1888	86,576*	83,770*	96,216*
Saskatoon, Sask.	1906	133,750*	154,210	177,641*
Sault Ste Marie, Ont.	1912	81,048	82,697	80,905
Scarborough, Ont.	1983	387,149*	443,353	484,676
Sherbrooke, Que.	1875	76,804*	74,075	74,438*
Sudbury, Ont.	1930	97,604*	91,829	88,717
Thunder Bay, Ont.	1970	111,476	112,486	112,272
Toronto, Ont.	1834	633,318	599,217	612,289
Trois-Rivières, Que.	1857	52,518	50,466	50,122
Vancouver, BC	1886	410,188	414,281*	431,147*
Vaughan, Ont.	1971	17,782	29,674	65,058
Verdun, Que.	1912	68,013	61,287	60,246
Victoria, BC	1862	62,551	64,379	66,303
Waterloo, Ont.	1948	46,623	49,428	58,718
Windsor, Ont.	1892	196,526	192,083	193,111*
Winnipeg, Man. <sup>1</sup>	1972	560,874*	564,473*	594,551
York, Ont.	1983	141,367	134,617	135,401

\*Indicates a boundary change since the preceding Census. Population totals in these cases are based on a different area, the boundaries at that particular Census year.

<sup>1</sup> Includes St. James-Assiniboia, Man.



## 2.7 Population of capital cities, selected Census years

City	1961	1971	1976	1981	1986
St. John's, Nfld.	63,633	88,102	86,576	83,770	96,216
Charlottetown, PEI	18,318	19,133	17,063	15,282	15,776
Halifax, NS	92,511	122,035	117,882	114,594	113,577
Fredericton, NB	19,683	24,254	45,248	43,723	44,352
Quebec, Que.	171,979	186,088	177,082	166,474	164,580
Toronto, Ont.	672,407	712,786	633,318	599,217	612,289
Winnipeg, Man.	265,429	246,246	560,874	564,473	594,551
Regina, Sask.	112,141	139,469	149,593	162,613	175,064
Edmonton, Alta.	281,027	438,152	461,361	532,246	573,982
Victoria, BC	54,941	61,761	62,551	64,379	66,303
Whitehorse, YT	5,031	11,217	13,311	14,814	15,199
Yellowknife, NWT	1	6,122	8,256	9,483	11,753
Ottawa, Ont.	268,206	302,341	304,462	295,163	300,763

<sup>1</sup> Incorporated after June 1, 1961.

## 2.8 Population of Census Metropolitan Areas, Census years

Census Metropolitan Area	1961	1971	1976	1981 <sup>1,2</sup>	1986
Calgary	279,062	403,319	469,917	625,966	671,326 <sup>3</sup>
Chicoutimi-Jonquière	127,616	133,703	128,643	158,229	158,468
Edmonton	359,821	495,702	554,228	740,882	785,465 <sup>3</sup>
Halifax	193,353	222,637	267,991	277,727	295,990
Hamilton	401,071	498,523	529,371	542,095	557,029
Kitchener	154,864	226,846	272,158	287,801	311,195
London	226,669	286,011	270,383	326,817	342,302
Montreal	2,215,627	2,743,208	2,802,485	2,862,286	2,921,357 <sup>3</sup>
Oshawa	...	120,318 <sup>1</sup>	135,196	186,446	203,543
Ottawa-Hull	457,038	602,510	693,288	743,821	819,263
Quebec	379,067	480,502	542,158	583,820	603,267
Regina	113,749	140,734	151,191	173,226	186,521
Saint John, NB	98,083	106,744	112,974	121,012	121,265
St. Catharines-Niagara	257,796	303,429	301,921	342,645	343,258
St. John's, Nfld.	106,666	131,814	143,390	154,835	161,901
Saskatoon	95,564	126,449	133,750	175,058	200,665
Sherbrooke	...	...	...	125,183	129,960
Sudbury	127,446	155,424	157,030	156,121	148,877
Thunder Bay	102,085	112,093	119,253	121,948	122,217
Toronto	1,919,409	2,628,043	2,803,101	3,130,392	3,427,168
Trois-Rivières	...	...	...	125,343	128,888
Vancouver	826,798	1,082,352	1,166,348	1,268,183	1,380,729
Victoria	155,763	195,800	218,250	241,450	255,547 <sup>3</sup>
Windsor	217,215	258,643	247,582	250,885	253,988
Winnipeg	476,543	540,262	578,217	592,061	625,304

<sup>1</sup> Adjusted due to boundary changes.

<sup>2</sup> Based on 1986 Census Metropolitan Area.

<sup>3</sup> Excludes population of one or more incompletely enumerated Indian reserves or Indian settlements.

## 2.9 Land area and population density, Census years

Province or territory	Land area km <sup>2</sup>	Population per km <sup>2</sup>				
		1961	1971	1976	1981	1986
Newfoundland	371 635	1.24	1.41	1.51	1.5	1.5
Prince Edward Island	5 660	18.50	19.73	20.90	21.6	22.4
Nova Scotia	52 841	13.95	14.93	15.87	16.0	16.5
New Brunswick	71 569	8.29	8.80	9.39	9.7	9.9
Quebec	1 357 655	3.88	4.44	4.59	4.7	4.8
Ontario	916 734	7.00	8.64	9.27	9.4	9.9
Manitoba	547 704	1.68	1.80	1.86	1.9	2.0
Saskatchewan	570 113	1.62	1.63	1.62	1.7	1.8
Alberta	638 233	2.07	2.53	2.85	3.5	3.7
British Columbia	892 677	1.75	2.35	2.65	3.1	3.2
Yukon	531 844	0.03	0.03	0.04	0.04	0.04
Northwest Territories	3 246 389	0.01	0.01	0.01	0.01	0.01
Canada	9 203 054	1.98	2.34	2.49	2.6	2.8

**2.10 Population by sex distribution, 1986 and ratios, by province, 1976, 1981 and 1986**

Province or territory	Population, 1986 <sup>1</sup>		Males to 100 females		
	Male	Female	1976	1981	1986 <sup>1</sup>
Newfoundland	284,365	283,980	103.3	101.3	100.1
Prince Edward Island	62,985	63,750	100.7	99.0	98.7
Nova Scotia	430,570	442,605	99.9	98.1	97.3
New Brunswick	350,765	358,675	100.4	98.7	97.8
Quebec	3,201,220	3,331,240	97.9	97.1	96.1
Ontario	4,467,795	4,633,895	98.3	97.0	96.4
Manitoba	523,775	539,240	98.9	97.5	97.1
Saskatchewan	504,360	505,250	101.8	100.8	99.8
Alberta	1,192,045	1,173,785	103.0	104.5	101.6
British Columbia	1,428,115	1,455,255	99.9	99.0	98.1
Yukon	12,330	11,175	115.4	110.9	110.3
Northwest Territories	27,415	24,820	111.3	110.1	110.5
Canada	12,485,650	12,923,680	99.2	98.3	97.4

<sup>1</sup> The figures for 1986 exclude the population on 136 incompletely enumerated Indian reserves and settlements. The total population on these reserves was estimated to be about 45,000 in 1986.

**2.11 Population by age distribution, 1976, 1981 and 1986**

Age group	Number			Percentage		
	1976	1981	1986 <sup>1</sup>	1976	1981	1986 <sup>1</sup>
0 - 4 years	1,731,995	1,783,370	1,810,190	7.5	7.3	7.2
5 - 9 "	1,887,805	1,776,860	1,794,975	8.2	7.3	7.1
10 - 14 "	2,276,375	1,920,870	1,786,800	9.9	7.9	7.1
15 - 19 "	2,345,255	2,314,885	1,924,855	10.2	9.5	7.6
20 - 24 "	2,133,805	2,343,810	2,253,345	9.3	9.6	8.9
25 - 29 "	1,993,060	2,177,610	2,341,510	8.7	8.9	9.3
30 - 34 "	1,627,485	2,038,580	2,185,645	7.1	8.4	8.6
35 - 39 "	1,328,790	1,630,250	2,026,175	5.8	6.7	8.0
40 - 44 "	1,268,220	1,337,905	1,614,725	5.5	5.5	6.4
45 - 49 "	1,252,845	1,255,355	1,315,885	5.4	5.2	5.2
50 - 54 "	1,220,180	1,243,480	1,229,330	5.3	5.1	4.9
55 - 59 "	1,019,035	1,179,915	1,203,195	4.4	4.8	4.8
60 - 64 "	905,400	979,315	1,125,130	3.9	4.0	4.4
65 - 69 "	720,815	844,330	911,765	3.1	3.5	3.6
70 - 74 "	533,725	633,415	738,320	2.3	2.6	2.9
75 years and over	747,805	883,230	1,047,490	3.3	3.6	4.1
Canada	22,992,605	24,343,180	25,309,330	100.0	100.0	100.0

<sup>1</sup> The figures for 1986 exclude the population on 136 incompletely enumerated Indian reserves and settlements. The total population on these reserves was estimated to be about 45,000 in 1986.

**2.12 Population by age group and sex, by province, 1986<sup>1</sup> (thousands)**

Province or territory	0-4 years		5-9 years		10-14 years		15-19 years	
	Male	Female	Male	Female	Male	Female	Male	Female
Newfoundland	22.0	21.3	24.5	23.6	28.6	26.9	29.7	28.6
Prince Edward Island	4.9	4.7	5.0	4.7	5.2	4.8	5.6	5.3
Nova Scotia	30.8	29.4	31.0	30.0	34.1	32.1	37.2	34.7
New Brunswick	25.6	24.4	27.3	25.9	29.8	28.5	31.0	29.4
Quebec	221.4	210.5	241.6	228.7	225.0	213.9	243.3	232.2
Ontario	323.3	308.1	311.4	296.8	323.5	306.3	352.7	336.4
Manitoba	40.8	38.6	39.4	37.6	40.8	38.5	42.1	40.4
Saskatchewan	43.9	42.0	42.3	40.0	39.4	38.1	40.3	38.3
Alberta	105.0	100.0	94.4	89.3	88.6	84.0	92.9	89.3
British Columbia	105.5	99.3	99.4	94.5	98.2	93.7	106.9	101.8
Yukon	1.2	1.1	1.0	0.9	0.9	0.8	0.9	0.9
Northwest Territories	3.3	3.1	2.9	2.8	2.6	2.4	2.7	2.5
Canada	927.8	882.4	920.1	874.9	916.8	870.0	985.3	939.6

**2.12 Population by age group and sex, by province, 1986<sup>1</sup> (thousands) (concluded)**

Province or territory	20-24 years		25-34 years		35-44 years		45-54 years	
	Male	Female	Male	Female	Male	Female	Male	Female
Newfoundland	25.5	25.6	46.9	48.7	38.9	38.3	24.8	23.6
Prince Edward Island	5.8	5.6	10.1	10.2	8.4	8.3	5.9	5.7
Nova Scotia	41.5	40.1	74.1	75.6	60.6	60.4	41.4	41.4
New Brunswick	32.2	31.8	60.5	61.6	49.7	48.5	32.3	32.5
Quebec	294.8	290.6	594.7	603.0	488.7	494.4	337.9	347.8
Ontario	408.6	406.0	778.8	804.2	654.5	662.5	475.9	474.2
Manitoba	47.3	47.2	90.9	90.2	69.6	69.6	49.3	49.2
Saskatchewan	44.7	44.2	86.6	83.9	60.1	58.0	44.8	44.2
Alberta	112.2	112.7	248.0	236.9	168.6	161.5	110.6	104.7
British Columbia	115.3	114.3	250.1	256.5	216.8	212.5	150.2	143.1
Yukon	1.0	1.0	2.6	2.7	2.2	1.8	1.2	1.0
Northwest Territories	2.7	2.7	5.4	5.0	3.8	3.1	2.0	1.7
Canada	1,131.5	1,121.9	2,248.8	2,278.4	1,822.0	1,818.9	1,276.2	1,269.1
	55-64 years		65-69 years		70 + years		All ages	
	Male	Female	Male	Female	Male	Female	Male	Female
Newfoundland	20.6	20.3	8.7	9.1	14.1	18.1	284.4	284.0
Prince Edward Island	5.1	5.3	2.3	2.6	4.7	6.5	62.9	63.8
Nova Scotia	35.8	39.2	15.8	18.8	28.3	40.9	430.6	442.6
New Brunswick	28.6	31.0	12.0	14.0	21.7	31.0	350.8	358.7
Quebec	290.0	323.3	101.1	126.8	162.8	260.0	3,201.2	3,331.2
Ontario	428.2	457.6	151.8	181.9	259.0	399.9	4,467.8	4,633.9
Manitoba	46.7	51.1	19.5	23.0	37.5	53.8	523.8	539.2
Saskatchewan	44.5	45.6	19.2	21.6	38.6	49.2	504.4	505.3
Alberta	87.7	88.2	30.4	34.8	53.8	72.4	1,192.0	1,173.8
British Columbia	134.8	141.2	53.4	64.1	97.6	134.4	1,428.1	1,455.3
Yukon	0.8	0.6	0.2	0.2	0.3	0.2	12.3	11.2
Northwest Territories	1.2	0.9	0.3	0.2	0.5	0.4	27.4	24.8
Canada	1,124.1	1,204.2	414.5	497.2	718.8	1,067.0	12,485.7	12,823.7

<sup>1</sup> The figures for 1986 exclude the population on 136 incompletely enumerated Indian reserves and settlements. The total population on these reserves was estimated to be about 45,000 in 1986.

**2.13 Population by marital status, age groups and sex, 1986<sup>1</sup>**

Age group	Sex	Single	Married	Widowed	Divorced	Separated	Total
0 - 14 years	M	2,764,630	—	—	—	—	2,764,635
	F	2,627,330	—	—	—	—	2,627,330
	T	5,391,960	—	—	—	—	5,391,965
15 - 24 years	M	1,868,330	237,565	740	2,755	7,320	2,116,705
	F	1,570,755	463,625	1,690	6,940	18,485	2,061,495
	T	3,439,080	701,190	2,430	9,690	25,810	4,178,200
25 - 34 years	M	673,515	1,467,310	1,780	49,395	56,750	2,248,755
	F	449,365	1,646,480	8,025	88,685	85,845	2,278,400
	T	1,122,880	3,113,785	9,805	138,085	142,595	4,527,155
35 - 44 years	M	182,670	1,485,835	5,260	85,955	62,260	1,821,990
	F	141,520	1,437,920	24,220	134,360	80,890	1,818,905
	T	324,195	2,923,760	29,475	220,315	143,155	3,640,895
45 - 54 years	M	90,980	1,063,015	13,135	66,350	42,680	1,276,160
	F	72,450	994,680	63,370	90,130	48,420	1,269,055
	T	163,425	2,057,695	76,510	156,475	91,100	2,545,215
55 - 64 years	M	83,035	925,650	36,595	46,810	31,980	1,124,065
	F	72,305	849,400	188,285	60,195	34,070	1,204,255
	T	155,340	1,775,050	224,875	107,000	66,050	2,328,320
65 years and over	M	85,560	843,945	153,365	25,665	24,800	1,133,340
	F	134,805	618,235	753,920	33,255	24,020	1,564,240
	T	220,365	1,462,185	907,290	58,920	48,820	2,697,575
Canada	M	5,748,720	6,023,325	210,875	276,935	225,795	12,485,655
	F	5,068,525	6,010,340	413,555	291,740	217,740	12,823,680
	T	10,817,250	12,033,670	1,250,395	690,490	517,530	25,309,330

<sup>1</sup> The figures for 1986 exclude the population on 136 incompletely enumerated Indian reserves and settlements. The total population on these reserves was estimated to be about 45,000 in 1986.

**2.14 Population by mother tongue, 1981 and 1986**

Language	1981 <sup>1</sup>		1986	
	No.	%	No.	%
English	14,684,365	60.3	15,334,085	60.6
French	6,127,530	25.2	6,159,740	24.3
Non-official languages				
Aboriginal	150,235	0.6	138,060	0.5
Italian	499,920	2.1	455,820	1.8
Portuguese	159,295	0.7	153,985	0.6
Spanish	64,575	0.3	83,130	0.3
German <sup>2</sup>	485,375	2.0	438,680	1.7
Yiddish	27,945	0.1	22,665	0.1
Dutch	136,500	0.6	123,670	0.5
Ukrainian	258,575	1.1	208,415	0.8
Russian	28,525	0.1	24,860	0.1
Polish	116,095	0.5	123,120	0.5
Finnish	31,130	0.1	25,770	0.1
Hungarian	77,630	0.3	69,000	0.3
Greek	116,835	0.5	110,350	0.4
Arabic <sup>3</sup>	44,425	0.2	40,665	0.2
Punjabi	49,670	0.2	63,640	0.3
Chinese	212,785	0.9	266,560	1.1
Vietnamese	28,325	0.1	41,560	0.2
Tagalog (Pilipino)	36,195	0.1	42,420	0.2
Other languages	409,270	1.7	428,205	1.7
Sub-total, single response	23,745,200	97.5	24,354,390	96.2
Multiple response	597,980	2.5	954,940	3.8
Canada <sup>4</sup>	24,343,180	100.0	25,309,330	100.0

<sup>1</sup> Since multiple responses are shown in this table, the 1981 data do not correspond to those previously released.

<sup>2</sup> Includes Alsatian in 1986.

<sup>3</sup> Includes Maltese in 1981.

<sup>4</sup> The figures for 1986 exclude the population on 136 incompletely enumerated Indian reserves and settlements. The total population on these reserves was estimated to be about 45,000 in 1986.

**2.15 Distribution of the population by mother tongue, by province, 1981 and 1986**

Province or territory	Total population	Single response			Multiple responses				
		English	French	Non-official language	English and French	English and non-official language(s)	French and non-official language(s)	English, French and non-official language(s)	Non-official languages(s)
1981									
Nfld.	567,680	559,845	2,110	4,255	910	510	10	30	—
PEI	122,505	114,685	5,700	1,245	675	190	—	10	—
NS	847,445	790,320	33,300	16,280	4,645	2,640	55	150	45
NB	696,405	445,860	227,250	7,665	13,010	2,415	45	145	10
Que.	6,438,400	641,550	5,247,045	394,875	100,850	17,560	18,070	17,475	980
Ont.	8,625,105	6,584,540	439,905	1,368,250	62,070	154,535	2,340	7,560	5,905
Man.	1,026,240	723,180	49,435	216,395	5,450	29,760	250	530	1,245
Sask.	968,315	763,155	23,855	154,880	2,850	22,340	190	330	715
Alta.	2,237,725	1,790,840	56,770	335,025	9,115	42,355	560	1,400	1,660
BC	2,744,465	2,226,310	40,500	413,260	8,405	51,600	695	1,800	1,895
YT	23,150	20,000	530	2,030	95	465	10	15	15
NWT	45,740	24,075	1,140	19,145	165	1,165	15	25	10
Canada	24,343,180	14,684,365	6,127,530	2,933,305	208,245	325,530	22,255	29,475	12,485
1986									
Nfld.	568,350	560,360	2,005	3,765	1,120	1,025	10	65	5
PEI	126,645	118,490	5,155	1,340	1,340	290	5	15	—
NS	873,175	814,135	30,865	15,890	8,490	3,490	65	205	35
NB	709,440	450,970	225,590	7,885	23,050	1,650	75	200	25
Que.	6,532,465	580,030	5,316,925	393,725	150,730	29,875	30,635	29,350	1,185
Ont.	9,101,690	6,941,930	424,720	1,354,610	104,550	254,525	3,540	11,015	6,795
Man.	1,063,015	758,305	45,600	197,195	10,990	48,295	270	980	1,390
Sask.	1,009,610	815,090	20,725	132,750	5,190	34,400	225	465	770
Alta.	2,365,825	1,914,450	48,070	314,200	14,150	70,945	615	1,745	1,650
BC	2,883,365	2,331,595	38,240	416,335	12,685	79,345	835	2,490	1,850
YT	23,505	20,730	560	1,730	105	360	—	5	5
NWT	52,240	28,010	1,290	21,140	215	1,525	25	35	5
Canada	25,309,330	15,334,085	6,159,740	2,860,570	332,610	525,720	36,310	46,585	13,715



## 2.16 Private households and average number of persons per household, by province, 1976, 1981 and 1986<sup>1</sup>

Province or territory	Private households				Average persons per households		
	1976	1981	1986	% increase 1981-86	1976	1981	1986
Newfoundland	131,665	148,420	159,080	7.2	4.1	3.8	3.5
Prince Edward Island	32,930	37,660	40,695	8.1	3.5	3.2	3.0
Nova Scotia	243,095	273,190	295,780	8.3	3.3	3.0	2.9
New Brunswick	190,435	214,920	231,680	7.8	3.5	3.2	3.0
Quebec	1,894,110	2,172,855	2,357,105	8.5	3.2	2.9	2.7
Ontario	2,634,620	2,969,785	3,221,730	8.5	3.1	2.8	2.8
Manitoba	328,005	357,985	382,345	6.8	3.1	2.8	2.7
Saskatchewan	291,155	332,710	358,265	7.7	3.1	2.8	2.7
Alberta	575,280	758,240	836,130	10.3	3.1	2.9	2.8
British Columbia	828,285	996,640	1,087,120	9.1	2.9	2.7	2.6
Yukon	6,495	7,600	7,975	4.9	3.2	2.9	2.8
Northwest Territories	10,020	11,520	13,775	19.6	4.1	3.8	3.7
Canada	7,166,095	8,281,530	8,991,670	8.6	3.1	2.9	2.8

<sup>1</sup> The figures for 1986 exclude the population on 136 incompletely enumerated Indian reserves and settlements. The total population on these reserves was estimated to be about 45,000 in 1986.

## 2.17 Private households by type, 1976, 1981 and 1986

Type of household	Number			Percentage of total households		
	1976	1981	1986	1976	1981	1986
Family households	5,633,945	6,231,490	6,635,000	78.6	75.2	73.8
One-family households	5,542,295	6,140,330	6,537,880	77.3	74.1	72.7
Primary-family households	5,513,765	6,043,735	6,438,995	76.9	73.0	71.6
Without additional persons	5,025,815	5,556,385	5,938,725	70.1	67.1	66.0
With additional persons	487,950	487,350	500,275	6.8	5.9	5.6
Secondary-family households	28,525	96,590	98,885	0.4	1.2	1.1
Multiple-family households	91,650	91,155	97,115	1.3	1.1	1.1
Non-family households	1,532,150	2,050,045	2,356,675	21.4	24.8	26.2
One person only	1,205,340	1,681,130	1,934,710	16.8	20.3	21.5
Two or more persons	326,810	368,910	421,965	4.6	4.5	4.7
Total households	7,166,095	8,281,530	8,991,675	100.0	100.0	100.0

## 2.18 Household maintainers by age groups, 1986

Province or territory	15-24 years	25-39 years	40-49 years	50-64 years	65 years and over	Total
Newfoundland	6,625	59,140	30,190	35,410	27,710	159,080
Prince Edward Island	2,045	13,505	6,910	8,870	9,365	40,690
Nova Scotia	16,100	100,950	50,700	63,980	64,050	295,780
New Brunswick	12,080	81,880	40,430	50,110	47,175	231,680
Quebec	136,025	858,975	449,225	539,570	373,310	2,357,100
Ontario	168,140	1,109,750	587,000	757,265	599,570	3,221,725
Manitoba	26,500	128,610	60,315	81,890	85,025	382,345
Saskatchewan	28,535	120,215	51,275	75,795	82,445	358,270
Alberta	72,870	346,420	140,845	159,340	116,655	836,130
British Columbia	65,235	378,670	191,700	237,550	213,970	1,087,115
Yukon	570	3,805	1,645	1,395	560	7,975
Northwest Territories	1,220	6,965	2,585	2,155	850	13,770
Canada	535,950	3,208,885	1,612,815	2,013,330	1,620,690	8,991,670

**2.19 Families and persons per family, 1981 and 1986**

Province or territory	Families		Persons in families		Average number of persons per family	
	1981	1986	1981	1986	1981	1986
Newfoundland	135,150	142,125	509,545	507,745	3.8	3.6
Prince Edward Island	30,220	32,070	105,745	107,935	3.5	3.4
Nova Scotia	216,200	230,490	721,035	737,690	3.3	3.2
New Brunswick	176,565	186,895	605,190	611,105	3.4	3.3
Quebec	1,671,540	1,751,500	5,491,195	5,472,275	3.3	3.1
Ontario	2,278,970	2,445,740	7,348,510	7,668,010	3.2	3.1
Manitoba	262,190	276,320	851,310	873,320	3.2	3.2
Saskatchewan	245,670	260,605	809,945	840,545	3.3	3.2
Alberta	565,635	616,320	1,842,430	1,962,750	3.3	3.2
British Columbia	727,680	775,880	2,261,040	2,351,185	3.1	3.0
Yukon	5,675	5,830	18,510	18,620	3.3	3.2
Northwest Territories	9,480	11,215	38,170	43,480	4.0	3.9
Canada	6,324,975	6,734,980	20,602,630	21,194,650	3.3	3.1

**2.20 Families by family structure, 1976, 1981 and 1986**

Family structure	Number			Percentage		
	1976	1981	1986	1976	1981	1986
Husband-wife families	5,168,560	5,610,970	5,881,335	90.2	88.7	87.3
Lone-parent families	559,330	714,005	853,645	9.8	11.3	12.7
Male parent	94,990	124,175	151,740	1.7	2.0	2.3
Female parent	464,345	589,825	701,900	8.1	9.3	10.4
Total families	5,727,895	6,324,975	6,734,980	100.0	100.0	100.0

**2.21 Husband-wife and lone-parent families by age of husband, wife and lone-parent, 1976, 1981 and 1986**

Age	1976		1981		1986	
	No.	%	No.	%	No.	%
Husband-wife families	5,168,565		5,610,965		5,881,335	
Husbands	5,168,565	100.0	5,610,965	100.0	5,881,335	100.0
Under 25 years	338,625	6.6	320,545	5.7	222,200	3.8
25 - 44 years	2,445,300	47.3	2,707,415	48.3	2,900,925	49.3
45 - 64 years	1,785,815	34.6	1,876,985	33.5	1,953,160	33.2
65 years and over	598,820	11.6	706,020	12.6	805,055	13.7
Wives	5,168,560	100.0	5,610,965	100.0	5,881,335	100.0
Under 25 years	623,490	12.1	594,310	10.6	444,805	7.6
25 - 44 years	2,482,805	48.0	2,777,730	49.5	3,040,905	51.7
45 - 64 years	1,662,315	32.2	1,750,645	31.2	1,813,045	30.8
65 years and over	399,960	7.7	488,275	8.7	582,580	9.9
Lone-parent families	559,335		714,010		853,645	
Male	94,990	100.0	124,175	100.0	151,745	100.0
Under 25 years	3,280	3.5	2,530	2.0	3,005	2.0
25 - 44 years	33,840	35.6	47,320	38.1	63,050	41.5
45 - 64 years	40,795	42.9	56,230	45.3	65,890	43.4
65 years and over	17,075	18.0	18,110	14.6	19,800	13.0
Female	464,345	100.0	589,825	100.0	701,900	100.0
Under 25 years	33,080	7.1	45,525	7.7	49,670	7.1
25 - 44 years	198,750	42.8	279,600	47.4	363,950	51.9
45 - 64 years	164,910	35.5	193,280	32.8	209,570	29.9
65 years and over	67,595	14.6	71,430	12.1	78,715	11.2

**2.22 Husband-wife and lone-parent families by number of persons, by province, 1986**

Family structure	Total families	Number of persons				Total persons in families	Average number of persons per family
		2	3	4	5+		
Newfoundland – all families	142,125	38,640	32,330	39,690	31,465	507,745	3.6
Husband-wife	126,295	30,680	27,770	37,615	30,230	462,875	3.7
Lone-parent	15,825	7,955	4,560	2,070	1,240	44,870	2.8
Prince Edward Island – all families	32,070	11,250	6,975	7,725	6,125	107,935	3.4
Husband-wife	28,030	8,950	5,855	7,300	5,915	97,185	3.5
Lone-parent	4,040	2,300	1,115	425	210	10,750	2.7
Nova Scotia – all families	230,490	88,015	53,665	56,485	32,330	737,690	3.2
Husband-wife	200,180	70,825	44,830	53,470	31,060	657,810	3.3
Lone-parent	30,310	17,190	8,835	3,015	1,275	79,875	2.6
New Brunswick – all families	186,895	66,410	43,630	48,210	28,645	611,105	3.3
Husband-wife	162,025	52,680	36,270	45,560	27,525	544,830	3.4
Lone-parent	24,865	13,730	7,360	2,650	1,125	66,275	2.7
Quebec – all families	1,751,500	687,755	429,125	429,405	205,215	5,472,275	3.1
Husband-wife	1,498,690	537,435	355,570	407,845	197,845	4,825,160	3.2
Lone-parent	252,810	150,325	73,550	21,565	7,365	647,110	2.6
Ontario – all families	2,445,740	982,375	553,760	604,660	304,945	7,668,010	3.1
Husband-wife	2,154,990	816,530	464,950	577,360	296,155	6,913,655	3.2
Lone-parent	290,755	165,850	88,810	27,300	8,795	754,345	2.6
Manitoba – all families	276,320	114,205	59,380	63,945	38,785	873,320	3.2
Husband-wife	242,520	95,140	49,565	60,580	37,230	783,605	3.2
Lone-parent	33,800	19,065	9,815	3,365	1,555	89,715	2.7
Saskatchewan – all families	260,605	105,265	52,850	59,865	42,630	840,545	3.2
Husband-wife	231,565	89,385	44,615	56,660	40,905	761,505	3.3
Lone-parent	29,040	15,875	8,235	3,200	1,725	79,040	2.7
Alberta – all families	616,320	241,330	137,435	153,065	84,490	1,962,750	3.2
Husband-wife	543,460	201,275	114,565	145,870	81,755	1,770,245	3.3
Lone-parent	72,855	40,055	22,870	7,200	2,735	192,510	2.6
British Columbia – all families	775,880	350,175	163,855	177,035	84,805	2,351,185	3.0
Husband-wife	679,235	294,785	133,685	168,640	82,125	2,101,935	3.1
Lone-parent	96,645	55,395	30,165	8,395	2,695	249,250	2.6
Yukon – all families	5,830	2,220	1,380	1,480	790	18,620	3.2
Husband-wife	4,960	1,750	1,120	1,340	750	16,270	3.3
Lone-parent	870	465	260	95	45	2,345	2.7
Northwest Territories – all families	11,215	2,940	2,335	2,680	3,260	43,480	3.9
Husband-wife	9,390	2,115	1,820	2,440	3,020	37,875	4.0
Lone-parent	1,825	830	510	235	255	5,605	3.1
Canada – all families	6,734,980	2,690,575	1,536,715	1,644,205	863,480	21,194,650	3.1
Husband-wife	5,881,335	2,201,550	1,280,610	1,564,685	834,490	18,972,950	3.2
Lone-parent	853,645	489,025	256,105	79,520	28,995	2,221,705	2.6

**2.23 Children living at home in private households, by age groups, by province, 1986**

Province or territory	Under 6 years	6–14 years	15–17 years	18–24 years	25 years and over	Total children living at home
Newfoundland	48,475	91,265	33,760	49,165	16,675	239,335
Prince Edward Island	10,940	17,390	6,205	9,680	3,620	47,840
Nova Scotia	68,950	111,885	40,340	63,640	22,195	307,010
New Brunswick	57,895	98,550	34,170	52,785	18,790	262,185
Quebec	515,000	797,760	264,160	466,120	179,055	2,222,085
Ontario	735,090	1,092,625	391,450	646,910	200,200	3,067,275
Manitoba	90,035	134,680	46,060	62,790	20,920	354,485
Saskatchewan	97,875	137,825	43,880	53,055	15,745	348,380
Alberta	235,785	308,900	100,060	125,130	33,095	802,970
British Columbia	238,250	338,070	119,490	153,115	47,145	896,070
Yukon	2,490	3,020	1,005	1,035	290	7,835
Northwest Territories	6,820	8,995	2,695	3,280	1,080	22,875
Canada	2,108,605	3,140,955	1,083,260	1,686,710	558,805	8,578,340

## 2.24 Summary of principal vital statistics

Province or territory and year	Live births		Deaths		Natural increase <sup>1</sup>		Marriages		Divorces	
	No.	Rate <sup>2</sup>	No.	Rate <sup>2</sup>	No.	Rate <sup>2</sup>	No.	Rate <sup>2</sup>	No.	Rate <sup>3</sup>
Newfoundland										
1982	9,173	16.1	3,385	5.9	5,788	10.2	3,764	6.5	625	109.8
1983	8,929	15.4	3,498	6.1	5,431	9.4	3,778	6.5	711	123.0
1984	8,560	14.8	3,520	6.1	5,040	8.7	3,567	6.2	590	101.8
1985	8,500 <sup>4</sup>	14.6	3,557	6.1	4,943	8.5	3,220	5.5	561	96.6
Prince Edward Island										
1982	1,924	15.7	980	8.0	944	7.7	855	7.0	206	167.8
1983	1,907	15.4	1,050	8.5	857	6.9	937	7.6	215	173.4
1984	1,954	15.6	1,109	8.9	845	6.7	1,057	8.4	195	155.6
1985	2,008	15.8	1,110	8.7	898	7.1	956	7.5	213	167.6
Nova Scotia										
1982	12,325	14.5	6,941	8.1	5,384	6.3	6,486	7.6	2,281	267.6
1983	12,401	14.4	7,047	8.2	5,354	6.2	6,505	7.6	2,340	272.3
1984	12,378	14.2	6,913	7.9	5,465	6.3	6,798	7.8	2,264	260.3
1985	12,450	14.1	7,315	8.3	5,135	5.8	6,807	7.7	2,337	265.4
New Brunswick										
1982	10,489	15.0	5,197	7.4	5,292	7.6	4,923	7.0	1,663	237.9
1983	10,518	14.9	5,206	7.4	5,312	7.5	5,260	7.4	1,942	274.8
1984	10,360	14.5	5,272	7.4	5,088	7.1	5,294	7.4	1,427	200.1
1985	10,121	14.1	5,230	7.3	4,891	6.8	5,312	7.4	1,360	189.1
Quebec										
1982	90,800	14.0	43,497	6.7	47,303	7.3	38,354	5.9	18,579	286.6
1983	88,154	13.5	44,275	6.8	43,879	6.7	36,144	5.5	17,365	266.3
1984	87,839	13.4	44,449	6.8	43,390	6.6	37,433	5.7	16,845	257.2
1985	86,340	13.1	45,707	6.9	40,633	6.2	37,026	5.6	15,814	240.3
Ontario										
1982	124,856	14.3	63,696	7.3	61,160	7.0	71,595	8.2	23,644	271.3
1983	126,826	14.4	64,507	7.3	62,319	7.1	70,893	8.0	23,073	261.7
1984	131,296	14.7	64,703	7.2	66,593	7.4	71,922	8.0	21,636	242.1
1985	132,208	14.6	66,747	7.4	65,461	7.2	72,891	8.0	20,854	230.0
Manitoba										
1982	16,123	15.6	8,490	8.2	7,633	7.4	8,264	8.0	2,392	231.1
1983	16,602	15.8	8,521	8.1	8,081	7.7	8,261	7.9	2,642	252.3
1984	16,651	15.8	8,290	7.8	8,361	7.9	8,393	7.9	2,611	247.1
1985	17,097	16.0	8,756	8.2	8,341	7.8	8,296	7.8	2,314	216.3
Saskatchewan										
1982	17,722	18.1	8,202	8.4	9,520	9.7	7,491	7.6	1,815	185.3
1983	17,847	18.0	7,611	7.7	10,236	10.3	7,504	7.6	2,000	201.5
1984	18,014	17.9	7,710	7.7	10,304	10.2	7,213	7.2	1,988	197.6
1985	18,162	17.8	8,031	7.9	10,131	9.9	7,132	7.0	1,927	189.0
Alberta										
1982	45,036	19.4	12,968	5.6	32,068	13.8	22,312	9.6	8,882	383.3
1983	45,555	19.4	12,588	5.4	32,967	14.0	21,172	9.0	8,758	372.7
1984	44,105	18.8	12,730	5.4	31,375	13.4	20,052	8.5	8,454	359.9
1985	43,813	18.6	13,231	5.6	30,582	13.0	19,750	8.4	8,102	344.9
British Columbia										
1982	42,747	15.3	20,707	7.4	22,040	7.9	23,831	8.5	10,165	364.3
1983	42,919	15.2	19,827	7.0	23,092	8.2	23,692	8.4	9,348	331.0
1984	43,911	15.3	20,686	7.2	23,225	8.1	23,397	8.1	8,988	313.1
1985	43,127	14.9	21,302	7.4	21,825	7.5	22,292	7.7	8,330	288.0
Yukon										
1982	525	22.1	118	5.0	407	17.1	225	9.5	117	492.9
1983	540	24.2	113	5.1	427	19.1	243	10.9	88	394.6
1984	519	23.8	108	5.0	411	18.8	212	9.7	100	458.7
1985	464	20.4	123	5.4	341	15.0	185	8.1	96	421.0
Northwest Territories										
1982	1,362	28.9	232	4.9	1,130	24.0	260	5.5	67	142.0
1983	1,491	30.8	241	5.0	1,250	25.8	286	5.9	85	175.6
1984	1,444	29.2	237	4.8	1,207	24.4	259	5.2	74	149.8
1985	1,437	28.2	214	4.2	1,223	24.0	229	4.5	72	141.4
Canada										
1982	373,082	15.1	174,413	7.1	198,669	8.1	188,360	7.6	70,436	285.9
1983	373,689	15.0	174,484	7.0	199,205	8.0	184,675	7.4	68,567	275.5
1984	377,031	15.0	175,727	7.0	201,304	8.0	185,597	7.4	65,172	259.4
1985	375,727 <sup>4</sup>	14.8	181,323	7.2	194,404	7.7	184,096	7.3	61,980	244.4

<sup>1</sup> Excess births over deaths.<sup>2</sup> Per 1,000 population.<sup>3</sup> Per 100,000 population.<sup>4</sup> Adjusted for expected undercount.



2.25 Stillbirths and ratio per 1,000 live births, 1976-85

Year	Number (28 weeks or more gestation)												
	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT	NWT	Canada
1976	95	19	94	103	694 <sup>c</sup>	957	149	116	201	252	5	6	2,691 <sup>c</sup>
1977	77	14	80	70	610	850	119	126	238	237	1	15	2,437
1978	93	12	91	78	519	767	109	104	219	227	5	12	2,236
1979	48	14	73	79	534	726	99	110	201	209	1	7	2,101
1980	45	11	70	75	444	698	89	95	216	196	1	12	1,952
1981	49	9	76	59	479	641	92	103	215	242	1	6	1,972
1982	47	13	69	60	400	676	63	103	257	216	4	15	1,923
1983	49	18	73	56	384	669	82	98	200	191	2	6	1,828
1984	36	11	61	59	361	570	87	87	205	193	1	7	1,678
1985	42	14	55	43	333	598	78	70	180	206	2	8	1,629
Ratio													
	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT	NWT	Canada
1976	8.5	9.8	7.3	8.7	7.2 <sup>c</sup>	7.8	8.9	7.3	6.1	7.0	11.2	5.1	7.5 <sup>c</sup>
1977	6.9	7.1	6.5	6.1	6.4	6.9	7.1	7.6	6.9	6.5	2.3	12.6	6.7
1978	8.9	6.0	7.3	7.2	5.5	6.3	6.6	6.3	6.2	6.1	11.2	10.0	6.2
1979	4.7	7.2	5.9	7.3	5.4	6.0	6.1	6.5	5.4	5.4	2.0	5.5	5.7
1980	4.4	5.6	5.7	7.1	4.6	5.7	5.6	5.6	4.9	5.4	4.9	2.1	9.2
1981	4.8	4.7	6.3	5.6	5.0	5.2	5.7	5.9	5.0	5.8	1.9	4.6	5.3
1982	5.1	6.8	5.6	5.7	4.4	5.4	3.9	5.8	5.7	5.1	7.6	11.0	5.2
1983	5.5	9.4	5.9	5.3	4.4	5.3	4.9	5.5	4.4	4.4	3.7	4.0	4.9
1984	4.2	5.6	4.9	5.7	4.1	4.3	5.2	4.8	4.6	4.4	1.9	4.8	4.4
1985	4.9	6.9	4.4	4.2	3.8	4.5	4.5	3.8	4.1	4.8	4.3	5.5	4.3

2.26 Fertility rate<sup>1</sup> and reproduction rate<sup>2</sup>

Year and province or territory	Age group							Total fertility rate	Gross reproduction rate
	15-19	20-24	25-29	30-34	35-39	40-44	45-49		
1966	48.2	169.1	163.5	103.3	57.5	19.1	1.7	2,812	1,369
1971	40.1	134.4	142.0	77.3	33.6	9.4	0.6	2,187	1,060
1976 <sup>2</sup>	33.4	110.3	129.9	65.6	21.1	4.3	0.3	1,825	0.887
1981	26.4	96.7	126.9	68.0	19.4	3.2	0.2	1,704	0.829
1982	26.5	95.4	124.7	68.6	20.2	3.1	0.2	1,694	0.825
1983	24.9	92.4	124.6	70.5	20.5	3.0	0.2	1,680	0.816
1984	24.4	88.8	126.0	73.3	21.5	3.0	0.1	1,686	0.819
1985	23.7	85.3	125.3	74.6	21.8	3.0	0.1	1,669	0.811
1982									
Prince Edward Island	34.0	110.8	136.9	77.4	24.8	2.3	0.4	1,933	0.910
Nova Scotia	35.6	101.4	117.8	59.7	15.7	3.0	0.1	1,666	0.813
New Brunswick	35.0	117.3	118.0	53.8	13.4	2.9	0.1	1,702	0.827
Quebec	15.1	84.1	122.0	62.8	17.7	2.7	0.1	1,522	0.743
Ontario	23.5	87.9	122.6	71.5	21.7	3.1	0.1	1,652	0.803
Manitoba	38.9	104.5	129.3	69.1	21.9	3.9	0.4	1,840	0.902
Saskatchewan	49.6	138.7	148.6	73.0	20.3	3.6	0.2	2,170	1,072
Alberta	44.2	113.4	133.5	74.7	21.9	4.1	0.2	1,960	0.956
British Columbia	27.7	100.4	122.3	72.4	21.5	3.3	0.2	1,739	0.838
Yukon	45.9	124.1	138.2	79.1	19.8	1.6	—	2,044	1,036
Northwest Territories	113.5	185.9	147.2	91.3	48.0	13.8	—	2,998	1,409
1983									
Prince Edward Island	32.9	104.7	139.2	70.6	25.7	5.2	—	1,892	0.938
Nova Scotia	33.4	98.5	116.4	62.2	18.6	2.8	0.1	1,660	0.811
New Brunswick	32.3	111.1	121.3	55.8	14.0	3.1	0.2	1,689	0.828
Quebec	14.4	80.3	118.6	61.3	16.5	2.5	0.2	1,469	0.708
Ontario	22.1	84.4	124.8	74.6	22.6	2.9	0.1	1,658	0.806
Manitoba	40.2	105.8	128.8	73.3	21.9	4.0	0.1	1,870	0.907
Saskatchewan	50.4	134.2	146.7	72.0	19.9	3.2	0.4	2,134	1,052
Alberta	37.0	113.7	134.9	79.0	23.1	3.7	0.2	1,958	0.950
British Columbia	26.1	97.0	121.4	75.7	22.6	3.5	0.2	1,732	0.843
Yukon	46.7	160.0	148.5	81.7	33.3	1.7	—	2,360	1,109
Northwest Territories	107.7	195.6	164.4	98.1	55.0	18.2	1.2	3,201	1,572
1984									
Prince Edward Island	37.6	106.6	128.4	76.6	23.0	4.7	0.7	1,888	0.919
Nova Scotia	31.3	92.4	117.7	64.7	18.1	2.3	0.3	1,634	0.785
New Brunswick	31.3	105.6	122.3	53.7	15.4	1.9	—	1,651	0.810
Quebec	14.3	76.6	118.9	62.5	17.1	2.5	0.1	1,460	0.707

**2.26 Fertility rate<sup>1</sup> and reproduction rate<sup>2</sup> (concluded)**

Year and province or territory	Age group							Total fertility rate	Gross reproduction rate
	15-19	20-24	25-29	30-34	35-39	40-44	45-49		
Ontario	21.8	82.7	127.6	79.1	23.9	3.3	0.1	1,692	0.824
Manitoba	39.3	97.6	133.0	75.8	22.8	3.1	0.2	1,859	0.901
Saskatchewan	49.0	127.3	145.6	75.8	20.1	3.4	0.4	2,108	1.028
Alberta	35.2	107.8	132.0	81.5	23.4	3.2	0.2	1,916	0.933
British Columbia	24.7	94.8	125.4	78.4	24.7	3.2	0.1	1,757	0.850
Yukon	51.1	116.4	150.0	97.5	30.0	4.3	—	2,246	1.042
Northwest Territories	110.0	173.2	155.0	104.5	39.4	15.4	1.2	2,994	1.446
1985									
Prince Edward Island	33.7	99.7	140.8	77.1	24.0	5.2	0.3	1,904	0.902
Nova Scotia	29.2	87.3	118.9	65.8	19.1	3.3	0.1	1,618	0.783
New Brunswick	31.7	99.3	117.1	57.1	13.2	1.9	0.2	1,602	0.777
Quebec	14.5	73.5	116.7	62.0	17.1	2.2	0.1	1,430	0.692
Ontario	21.0	78.9	126.4	81.3	24.3	3.4	0.1	1,677	0.818
Manitoba	37.9	97.2	132.5	80.8	23.3	4.2	0.2	1,880	0.925
Saskatchewan	46.8	122.9	147.8	77.7	20.7	2.7	0.2	2,094	1.007
Alberta	34.4	106.0	135.4	82.8	23.8	3.8	0.2	1,932	0.941
British Columbia	22.8	90.3	124.9	79.5	25.4	3.1	0.2	1,731	0.834
Yukon	41.1	105.5	136.9	77.7	29.0	4.3	—	1,972	0.927
Northwest Territories	109.2	171.9	153.8	95.4	33.5	8.2	—	2,860	1.396

<sup>1</sup> Excludes Newfoundland, 1966-85.<sup>2</sup> Minor adjustments made in Quebec births for the year 1976.**2.27 Marriages and rate per 1,000 population**

Province or territory	1982		1983		1984		1985	
	Total marriages	Rate per 1,000 population	Total marriages	Rate per 1,000 population	Total marriages	Rate per 1,000 population	Total marriages	Rate per 1,000 population
Newfoundland	3,764	6.5	3,778	6.5	3,567	6.2	3,220	5.5
Prince Edward Island	855	7.0	937	7.6	1,057	8.4	956	7.5
Nova Scotia	6,486	7.6	6,505	7.6	6,798	7.8	6,807	7.7
New Brunswick	4,923	7.0	5,260	7.4	5,294	7.4	5,312	7.4
Quebec	38,354	5.9	36,144	5.5	37,433	5.7	37,026	5.6
Ontario	71,595	8.2	70,893	8.0	71,922	8.0	72,891	8.0
Manitoba	8,264	8.0	8,261	7.9	8,393	7.9	8,296	7.8
Saskatchewan	7,491	7.6	7,504	7.6	7,213	7.2	7,132	7.0
Alberta	22,312	9.6	21,172	9.0	20,052	8.5	19,750	8.4
British Columbia	23,831	8.5	23,692	8.4	23,397	8.1	22,292	7.7
Yukon	225	9.5	243	10.9	212	9.7	185	8.1
Northwest Territories	260	5.5	286	5.9	259	5.2	229	4.5
Canada	188,360	7.6	184,675	7.4	185,597	7.4	184,096	7.3

**2.28 Brides and bridegrooms, by age and marital status**

Year and age group	Brides						
	Number				Percentage		
	Single	Widowed	Divorced	Total	Single	Widowed	Divorced
1981							
Total, all ages	154,506	6,059	29,517	190,082	81.3	3.2	15.5
Average age	23.5	53.2	34.7	26.2	...	...	...
1982							
Total, all ages	152,825	5,518	29,951	188,294	81.1	2.9	15.9
Average age	23.7	53.7	34.8	26.4	...	...	...
1983							
Total, all ages	147,968	5,310	31,397	184,675	80.1	2.9	17.0
Average age	24.0	53.5	35.0	26.0	...	...	...

## 2.28 Brides and bridegrooms, by age and marital status (continued)

Year and age group	Brides						
	Number				Percentage		
	Single	Widowed	Divorced	Total	Single	Widowed	Divorced
1984							
Under 15 years	7	—	—	7	100.0	—	—
15 - 19 years	17,862	—	23	17,885	99.9	—	0.1
20 - 24 "	80,089	74	1,960	82,123	97.5	0.1	2.4
25 - 29 "	35,922	287	7,705	43,914	81.8	0.7	17.5
30 - 34 "	9,495	402	8,281	18,178	52.2	2.2	45.6
35 - 39 "	2,558	432	5,914	8,904	28.7	4.9	66.4
40 - 44 "	788	462	3,490	4,740	16.6	9.7	73.6
45 - 49 "	436	539	2,075	3,050	14.3	17.7	68.0
50 - 54 "	246	674	1,193	2,113	11.6	31.9	56.5
55 - 59 "	175	752	681	1,608	10.9	46.8	42.3
60 - 64 "	109	872	284	1,265	8.6	68.9	22.5
65 years and over	107	1,413	138	1,658	6.5	85.2	8.3
Total, stated ages	147,794	5,907	31,744	185,445	79.7	3.2	17.1
Age not stated	113	23	16	152	74.3	15.1	10.5
Total, all ages	147,907	5,930	31,760	185,597	79.7	3.2	17.1
Average age	24.3	53.8	35.4	27.2	...	...	...
1985							
Under 15 years	4	—	—	4	100.0	—	—
15 - 19 years	15,452	3	24	15,479	99.8	--	0.2
20 - 24 "	77,992	61	1,783	79,836	97.7	--	2.2
25 - 29 "	38,216	244	7,225	45,685	83.7	0.5	15.8
30 - 34 "	10,109	362	8,311	18,782	53.8	1.9	44.2
35 - 39 "	2,854	380	6,148	9,382	30.4	4.0	65.5
40 - 44 "	914	427	3,776	5,117	17.9	8.3	73.8
45 - 49 "	421	483	2,220	3,124	13.5	15.5	71.0
50 - 54 "	219	569	1,296	2,084	10.5	27.3	62.2
55 - 59 "	172	656	667	1,495	11.5	43.9	44.6
60 - 64 "	134	788	373	1,295	10.3	60.8	28.8
65 years and over	104	1,368	183	1,655	6.3	82.7	11.0
Total, stated ages	146,591	5,341	32,006	183,938	79.7	2.9	17.4
Age not stated	127	19	12	158	80.4	12.0	7.6
Total, all ages	146,718	5,360	32,018	184,096	79.7	2.9	17.4
Average age	24.6	54.2	35.9	27.4	...	...	...
Bridegrooms							
	Number				Percentage		
	Single	Widowed	Divorced	Total	Single	Widows	Divorced
1981							
Total, all ages	151,978	5,699	32,405	190,082	80.0	3.0	17.0
Average age	25.7	59.3	38.2	28.8	...	...	...
1982							
Total, all ages	149,419	5,423	33,334	188,176	79.3	2.9	17.7
Average age	25.9	59.6	38.2	29.0	...	...	...
1983							
Total, all ages	144,960	5,232	34,483	184,675	78.5	2.8	18.7
Average age	26.2	59.6	38.4	29.4	...	...	...
1984							
Under 15 years	1	—	—	1	100.0	—	—
15 - 19 years	3,703	2	2	3,707	99.9	--	--
20 - 24 "	63,211	16	530	63,757	99.1	--	0.8
25 - 29 "	52,693	76	5,129	57,898	91.0	0.1	8.9
30 - 34 "	16,565	182	8,653	25,400	65.2	0.7	34.1
35 - 39 "	4,868	234	7,829	12,931	37.6	1.8	60.5
40 - 44 "	1,563	281	5,039	6,883	22.7	4.1	73.2
45 - 49 "	671	391	3,253	4,315	15.6	9.1	75.3
50 - 54 "	422	579	2,160	3,161	13.4	18.3	68.3
55 - 59 "	292	775	1,399	2,466	11.8	31.4	56.8
60 - 64 "	216	910	731	1,857	11.6	49.0	39.4
65 years and over	243	2,141	467	2,851	8.5	75.1	16.4

**2.28 Brides and bridegrooms, by age and marital status (concluded)**

Year and age group	Bridegrooms				Percentage		
	Number						
	Single	Widowed	Divorced	Total	Single	Widowed	Divorced
Total, stated ages	144,448	5,587	35,192	185,227	78.0	3.0	19.0
Age not stated	226	60	84	370	61.1	16.2	22.7
Total, all ages	144,674	5,647	35,276	185,597	78.0	3.0	19.0
Average age	26.5	59.9	38.9	29.8	...	...	...
1985							
Under 15 years	—	—	—	—	—	—	—
15 - 19 years	3,152	—	9	3,161	99.7	—	0.3
20 - 24 "	59,567	13	468	60,048	99.2	—	0.8
25 - 29 "	54,886	74	4,463	59,423	92.4	0.1	7.5
30 - 34 "	17,611	164	8,351	26,126	67.4	0.6	32.0
35 - 39 "	5,161	199	7,939	13,299	38.8	1.5	59.7
40 - 44 "	1,562	297	5,190	7,049	22.2	4.2	73.6
45 - 49 "	670	334	3,359	4,363	15.4	7.7	76.9
50 - 54 "	416	521	2,247	3,184	13.1	16.4	70.5
55 - 59 "	301	721	1,376	2,398	12.6	30.1	57.3
60 - 64 "	244	854	783	1,881	13.0	45.4	41.6
65 years and over	200	2,087	533	2,820	7.1	74.0	18.9
Total, stated ages	143,770	5,264	34,718	183,752	78.2	2.9	18.9
Age not stated	239	43	62	344	69.5	12.5	18.0
Total, all ages	144,009	5,307	34,780	184,096	78.2	2.9	18.9
Average age	26.7	60.2	39.4	30.0	...	...	...

**2.29 Divorces and rates**

Province or territory	Number					Rate per 100,000 population				
	1981	1982	1983	1984	1985	1981	1982	1983	1984	1985
Newfoundland	569	625	711	590	561	100.2	109.8	123.0	101.8	96.6
Prince Edward Island	187	206	215	195	213	152.6	167.8	173.4	155.6	167.6
Nova Scotia	2,285	2,281	2,340	2,264	2,337	269.6	267.6	272.3	260.3	265.4
New Brunswick	1,334	1,663	1,942	1,427	1,360	191.6	237.9	274.8	200.1	189.1
Quebec	19,193	18,579	17,365	16,845	15,814	298.1	286.6	266.3	257.2	240.3
Ontario	21,680	23,644	23,073	21,636	20,854	251.4	271.3	261.7	242.1	230.0
Manitoba	2,399	2,392	2,642	2,611	2,314	233.8	231.1	252.3	247.1	216.3
Saskatchewan	1,932	1,815	2,000	1,988	1,927	199.5	185.3	201.5	197.6	189.0
Alberta	8,418	8,882	8,758	8,454	8,102	376.2	383.3	372.7	359.9	344.9
British Columbia	9,533	10,165	9,348	8,988	8,330	347.4	364.3	331.0	313.1	288.0
Yukon	75	117	88	100	96	324.0	492.9	394.6	458.7	421.0
Northwest Territories	66	67	85	74	72	144.3	142.0	175.6	149.8	141.4
Canada	67,671	70,436	68,567	65,172	61,980	278.0	285.9	275.5	259.4	244.4

**2.30 Alleged grounds for divorce by type of offence**

Alleged grounds	1981		1982		1983		1984		1985	
	No.	%	No.	%	No.	%	No.	%	No.	%
Marital offence										
Adultery	28,241	31.1	28,662	30.6	27,592	30.3	24,585	28.7	22,613	28.5
Physical cruelty	13,417	14.8	13,946	14.9	13,756	15.1	12,757	14.9	10,811	13.6
Mental cruelty	19,768	21.8	20,765	22.1	20,348	22.4	19,399	22.6	17,969	22.6
Other	184	0.2	226	0.2	210	0.2	231	0.3	175	0.2
Total	61,610	67.9	63,599	67.8	61,906	68.0	56,972	66.5	51,568	64.9



**2.30 Alleged grounds for divorce by type of offence (concluded)**

Alleged grounds	1981		1982		1983		1984		1985	
	No.	%	No.	%	No.	%	No.	%	No.	%
Marriage breakdown by reason of:										
Addiction to alcohol	1,543	1.7	1,425	1.5	1,204	1.3	1,071	1.2	880	1.1
Separation for not less than 3 years	26,059	28.8	27,285	29.1	26,553	29.2	26,472	30.9	25,948	32.7
Desertion by petitioner for not less than 5 years	1,066	1.2	1,108	1.2	1,016	1.1	926	1.1	727	0.9
Other	400	0.4	405	0.4	335	0.4	340	0.4	310	0.4
Total	29,068	32.1	30,223	32.2	29,108	32.0	28,809	33.6	27,865	35.1
Total, alleged grounds	90,678	100.0	93,822	100.0	91,014	100.0	85,781	100.0	79,433	100.0

**2.31 Divorces by number of dependent children**

Number of children	1981		1982		1983		1984		1985	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	32,559	48.1	33,388	47.4	32,213	47.0	31,156	47.8	30,076	48.5
1	15,423	22.8	16,235	23.1	15,745	23.0	14,756	22.6	13,719	22.1
2	13,973	20.7	15,033	21.3	14,987	21.9	14,174	21.8	13,548	21.9
3	4,292	6.3	4,467	6.3	4,380	6.4	4,008	6.1	3,732	6.0
4	1,064	1.6	1,019	1.5	991	1.4	834	1.3	715	1.2
5 or more	360	0.5	294	0.4	251	0.4	244	0.4	190	0.3
Total, divorces	67,671	100.0	70,436	100.0	68,567	100.0	65,172	100.0	61,980	100.0
Mean number of children	0.92	...	0.93	...	0.94	...	0.92	...	0.90	...

**2.32 Divorces by duration of marriage**

Duration of marriage	1981		1982		1983		1984		1985	
	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 1 year	163	0.2	195	0.3	162	0.2	174	0.3	177	0.3
1 year	1,282	1.9	1,403	2.0	1,306	1.9	1,246	1.9	1,220	2.0
2 years	2,517	3.7	2,586	3.7	2,540	3.7	2,259	3.5	2,052	3.3
3 "	3,263	4.8	3,493	4.9	3,364	4.9	2,944	4.6	2,776	4.5
4 "	4,420	6.6	4,425	6.3	4,257	6.2	3,913	6.0	3,628	5.8
Total, 1 - 4 years	11,645	17.2	12,102	17.2	11,629	16.9	10,536	16.3	9,853	15.9
5 years	4,873	7.2	4,766	6.8	4,687	6.8	4,206	6.4	4,018	6.5
6 "	4,809	7.1	4,811	6.8	4,538	6.6	4,101	6.3	3,914	6.3
7 "	4,545	6.7	4,598	6.5	4,424	6.5	3,979	6.1	3,690	6.0
8 "	4,090	6.1	4,327	6.1	4,236	6.2	3,780	5.8	3,432	5.5
9 "	3,670	5.4	4,071	5.8	3,750	5.5	3,663	5.6	3,258	5.3
Total, 5 - 9 years	21,987	32.5	22,573	32.0	21,635	31.6	19,729	30.2	18,312	29.6
10 - 14 years	13,271	19.6	14,569	20.7	14,655	21.4	14,151	21.6	13,439	21.7
15 - 19 "	7,668	11.3	8,215	11.7	8,356	12.2	8,366	12.8	8,413	13.6
20 - 24 "	5,534	8.2	5,685	8.1	5,253	7.7	5,253	8.1	5,156	8.3
25 - 29 "	3,709	5.5	3,633	5.2	3,570	5.2	3,564	5.5	3,396	5.5
30 years and over	3,760	5.6	3,576	5.1	3,384	4.9	3,496	5.4	3,343	5.4
Not stated	97	0.1	83	0.1	85	0.1	77	0.1	68	0.1
Total divorces	67,671	100.0	70,436	100.0	68,567	100.0	65,172	100.0	61,980	100.0
Median duration of marriage	10.0	...	10.1	...	10.3	...	10.7	...	10.9	...

## 2.33 Divorces by marital status of husband and wife at time of marriage

Marital status	1981		1982		1983		1984		1985	
	No.	%	No.	%	No.	%	No.	%	No.	%
Husband										
Single	61,378	90.7	63,317	89.9	61,230	89.3	57,755	88.6	54,620	88.1
Widowed	751	1.1	771	1.1	690	1.0	709	1.1	644	1.0
Divorced	5,528	8.2	6,329	9.0	6,631	9.7	6,690	10.3	6,705	10.8
Not stated	14	--	19	--	16	--	18	--	11	--
Total	67,671	100.0	70,436	100.0	68,567	100.0	65,172	100.0	61,980	100.0
Wife										
Single	61,248	90.6	63,155	89.6	61,163	89.2	57,666	88.5	54,542	88.0
Widowed	972	1.4	1,099	1.6	984	1.4	909	1.4	880	1.4
Divorced	5,438	8.0	6,171	8.8	6,411	9.4	6,582	10.1	6,554	10.6
Not stated	13	--	11	--	9	--	15	--	4	--
Total	67,671	100.0	70,436	100.0	68,567	100.0	65,172	100.0	61,980	100.0

## 2.34 Immigrant arrivals, 1959-85

Year	Arrivals	Year	Arrivals	Year	Arrivals
1959	106,928	1968	183,974	1977	114,914
1960	104,111	1969	161,531	1978	86,313
1961	71,689	1970	147,713	1979	112,096
1962	74,586	1971	121,900	1980	143,117
1963	93,151	1972	122,006	1981	128,618
1964	112,606	1973	184,200	1982	121,147
1965	146,758	1974	218,465	1983	89,157
1966	194,743	1975	187,881	1984	88,239
1967	222,876	1976	149,429	1985	84,302

## 2.35 Immigrant arrivals, by country of last permanent residence

Country of last permanent residence	1982	1983	1984	1985
Europe				
Austria	366	143	128	170
Belgium	745	367	236	215
British Isles				
England	13,332	4,730	4,116	3,639
Northern Ireland	535	177	161	146
Scotland	1,985	655	686	597
Wales	579	173	132	71
Channel Islands	14	2	9	1
Sub-total, British Isles	16,445	5,737	5,104	4,454
Czechoslovakia	853	1,259	924	903
Denmark	295	104	97	64
Finland	163	63	81	73
France	2,393	1,651	1,380	1,401
Germany, Democratic Republic of	25	28	—	—
Germany, Federal Republic of	4,425	2,518	1,727	1,578
Greece	885	601	555	551
Hungary	405	484	374	614
Ireland	630	299	291	265
Italy	1,506	826	839	650
Malta	154	61	64	68
Netherlands	1,827	672	545	466
Norway	104	50	29	59
Poland	8,278	5,094	4,499	3,617
Portugal (incl. Azores and Madeira)	2,244	1,350	1,342	1,342
Spain	440	323	266	103
Sweden	239	193	136	162
Switzerland	796	423	389	376
Turkey	712	296	370	206
USSR	377	212	140	110
Yugoslavia	773	527	465	478
Other Europe	1,070	1,031	920	934
Total, Europe	46,150	24,312	20,901	18,859

**2.35 Immigrant arrivals, by country of last permanent residence (continued)**

Country of last permanent residence	1982	1983	1984	1985
<b>Africa</b>				
Angola	39	41	19	21
Egypt	844	498	449	394
Ghana	85	134	122	194
Kenya	277	266	278	271
Morocco	481	390	251	338
Mozambique	20	10	30	9
Nigeria	170	116	158	89
South Africa	993	454	321	365
Tanzania	514	418	420	424
Uganda	45	111	146	129
Zambia	82	38	28	19
Other Africa	960	1,183	1,330	1,292
<b>Total, Africa</b>	<b>4,510</b>	<b>3,659</b>	<b>3,552</b>	<b>3,545</b>
<b>Australasia</b>				
Australia	564	334	377	355
New Zealand	357	139	154	147
Papua New Guinea	17	5	4	4
<b>Total, Australasia</b>	<b>938</b>	<b>478</b>	<b>535</b>	<b>506</b>
<b>Asia</b>				
Bangladesh	58	78	84	94
China	3,572	2,217	2,214	1,883
Cyprus	97	61	60	50
Hong Kong	6,542	6,710	7,696	7,380
India	7,776	7,041	5,502	4,028
Indonesia	264	136	131	107
Iran	1,201	1,268	1,870	1,728
Iraq	201	325	495	359
Israel	1,392	584	429	676
Japan	630	333	250	205
Jordan	98	83	50	116
Kampuchea	1,378	1,542	1,727	1,803
Korea, North	4	1	—	—
Korea, Republic of	1,506	1,017	801	934
Laos	375	434	870	379
Lebanon	1,190	813	1,245	1,657
Malaysia	688	399	356	332
Pakistan	868	836	611	479
Philippines	5,062	4,454	3,748	3,076
Singapore	435	241	176	166
Sri Lanka	182	166	1,048	815
Syria	281	193	213	265
Taiwan	560	570	421	536
Thailand	201	128	125	73
Vietnam	5,935	6,451	10,950	10,404
Other Asia	1,121	825	824	1,052
<b>Total, Asia</b>	<b>41,617</b>	<b>36,906</b>	<b>41,896</b>	<b>38,597</b>
<b>North and Central America</b>				
Antigua	111	67	71	56
Bahamas	89	27	31	35
Barbados	303	250	258	284
Bermuda	44	37	20	33
Grenada	239	165	168	169
Haiti	3,468	2,827	1,397	1,297
Jamaica	2,593	2,423	2,479	2,922
Mexico	513	512	522	369
St. Kitts, Nevis and Anguilla	73	63	43	33
St. Vincent	202	161	158	192
Trinidad and Tobago	992	787	595	670
United States	9,360	7,381	6,922	6,669
Other North and Central America	1,698	3,551	3,966	5,088
<b>Total, North and Central America</b>	<b>19,685</b>	<b>18,251</b>	<b>16,630</b>	<b>17,817</b>
<b>South America</b>				
Argentina	675	280	243	218
Bolivia	41	42	42	45
Brazil	272	158	180	162
Chile	1,011	757	664	534
Colombia	356	234	243	213
Ecuador	187	163	183	210
French Guiana	1	3	1	1
Guyana	3,486	2,605	1,896	2,301
Paraguay	62	74	74	47

**2.35 Immigrant arrivals, by country of last permanent residence (concluded)**

Country of last permanent residence	1982	1983	1984	1985
South America (cont'd)				
Peru	415	243	305	327
Suriname	27	12	4	17
Uruguay	141	108	89	93
Venezuela	196	137	160	188
Total, South America	6,870	4,816	4,084	4,356
Oceania				
Fiji	818	552	388	444
Mauritius	304	154	196	157
Other Oceania	59	29	32	21
Total, Oceania	1,181	735	616	622
Not stated	196	—	25	—
Total, all countries	121,147	89,157	88,239	84,302

**2.36 Immigrant arrivals, by country of citizenship**

Country of citizenship	1982	1983	1984	1985	Country of citizenship	1982	1983	1984	1985
Australia	484	315	317	319	New Zealand	364	140	164	148
Austria	201	117	127	165	Norway	106	51	31	54
Belgium	519	297	183	181	Pakistan	1,201	900	668	512
Britain and colonies	20,617	9,156	10,167	9,563	Philippines	5,249	4,562	3,801	3,150
Central America	1,121	3,158	3,577	4,437	Poland	5,879	4,545	3,588	2,819
China	3,308	1,862	1,526	1,816	Portugal	2,431	1,433	1,398	1,451
Czechoslovakia	552	335	415	567	South Africa	781	379	271	310
Denmark	299	106	93	73	South America	6,829	4,778	4,039	4,261
Egypt	755	455	447	348	Spain	260	133	137	98
Finland	170	70	83	69	Sri Lanka	290	197	1,086	845
France	2,219	1,489	1,169	1,178	Sweden	222	176	128	158
Germany, Federal					Switzerland	635	370	326	313
Republic of	3,062	2,376	1,610	1,441	Trinidad and Tobago	972	765	606	699
Greece	897	631	580	582	Turkey	704	279	338	202
Haiti	3,497	2,861	1,418	1,320	Union of Soviet Socialist Republics	104	63	45	51
Hungary	397	337	310	522	United States	9,071	7,097	6,660	6,538
India	8,146	7,332	5,701	4,209	Yugoslavia	805	493	487	492
Ireland	707	298	327	287	Other African	1,477	1,326	1,458	1,489
Israel	1,334	541	446	679	Other Asian	9,054	8,730	12,889	11,183
Italy	1,480	820	858	666	Other European	778	1,535	613	720
Jamaica	2,661	2,455	2,503	2,935	Stateless	14,557	11,899	13,190	12,590
Japan	598	308	246	198	Other	2,406	1,658	1,642	1,717
Lebanon	1,158	789	1,254	1,684	Total	121,147	89,157	88,239	84,302
Mexico	491	490	509	425					
Morocco	447	335	248	329					
Netherlands	1,852	715	560	509					

**2.37 Intended destination of immigrants**

Province or territory	1982			1983		
	Male	Female	Total	Male	Female	Total
Newfoundland	192	214	406	133	142	275
Prince Edward Island	79	86	165	40	65	105
Nova Scotia	632	622	1,254	422	411	833
New Brunswick	366	385	751	246	308	554
Quebec	10,569	10,762	21,331	7,918	8,456	16,374
Ontario	25,998	27,033	53,031	18,168	21,868	40,036
Manitoba	2,495	2,436	4,931	2,026	1,952	3,978
Saskatchewan	1,075	1,050	2,125	866	869	1,735
Alberta	8,887	9,061	17,948	4,932	5,756	10,688
British Columbia	9,100	9,896	18,996	6,696	7,751	14,447
Yukon and Northwest Territories	90	90	180	58	74	132
Not stated	15	14	29	—	—	—
Canada	59,498	61,649	121,147	41,505	47,652	89,157



2.37 Intended destination of immigrants (concluded)

Province or territory	1984			1985		
	Male	Female	Total	Male	Female	Total
Newfoundland	163	136	299	161	164	325
Prince Edward Island	53	56	109	57	56	113
Nova Scotia	490	544	1,034	476	498	974
New Brunswick	283	317	600	318	291	609
Quebec	7,193	7,448	14,641	7,449	7,435	14,884
Ontario	18,772	22,755	41,527	19,218	21,512	40,730
Manitoba	1,984	1,919	3,903	1,754	1,661	3,415
Saskatchewan	1,152	998	2,150	945	960	1,905
Alberta	4,909	5,761	10,670	4,243	4,758	9,001
British Columbia	5,897	7,293	13,190	5,590	6,649	12,239
Yukon and Northwest Territories	48	68	116	55	52	107
Not stated	—	—	—	—	—	—
Canada	40,944	47,295	88,239	40,266	44,036	84,302

2.38 Sex of immigrants

Year	Male	Female	Total
1976	72,605	76,824	149,429
1977	54,834	60,080	114,914
1978	40,057	46,256	86,313
1979	54,823	57,273	112,096
1980	71,939	71,178	143,117
1981	63,122	65,496	128,618
1982	59,498	61,649	121,147
1983	41,505	47,652	89,157
1984	40,944	47,295	88,239
1985	40,266	44,036	84,302

2.39 Marital status of immigrants

Year, sex and age group	Single	Married	Widowed	Divorced	Separated	Total
1982						
Male	29,814	27,887	862	718	217	59,498
Female	25,298	30,326	4,566	1,058	401	61,649
1983						
Male	21,046	19,037	726	509	187	41,505
Female	19,773	22,209	4,367	930	373	47,652
1984						
Male						
0 - 4 years	2,195	—	—	—	—	2,195
5 - 9 "	2,738	—	—	—	—	2,738
10 - 14 "	2,968	—	—	—	—	2,968
15 - 19 "	3,830	28	1	—	—	3,859
20 - 24 "	4,396	1,364	1	5	3	5,769
25 - 29 "	2,756	3,534	7	50	22	6,369
30 - 34 "	1,137	3,203	2	94	34	4,470
35 - 39 "	375	2,165	6	111	29	2,686
40 - 44 "	117	1,360	12	51	25	1,565
45 - 49 "	74	1,012	16	48	8	1,158
50 - 54 "	45	1,011	26	30	18	1,130
55 - 59 "	26	1,394	57	30	13	1,520
60 - 64 "	31	1,634	107	31	15	1,818
65 - 69 "	23	1,063	129	18	5	1,238
70 years +	29	1,018	381	17	16	1,461
Total, male	20,740	18,786	745	485	188	40,944

**2.39 Marital status of immigrants (concluded)**

Year, sex and age group	Single	Married	Widowed	Divorced	Separated	Total
<b>Female</b>						
0 - 4 years	2,070	—	—	—	—	2,070
5 - 9 "	2,645	—	—	—	—	2,645
10 - 14 "	2,807	7	1	—	—	2,815
15 - 19 "	3,348	440	—	—	—	3,788
20 - 24 "	4,003	3,330	6	14	6	7,359
25 - 29 "	2,592	4,363	19	86	27	7,087
30 - 34 "	1,305	3,246	45	123	43	4,762
35 - 39 "	587	2,175	42	108	39	2,951
40 - 44 "	275	1,350	67	96	26	1,814
45 - 49 "	166	1,170	136	80	44	1,596
50 - 54 "	117	1,491	295	91	54	2,048
55 - 59 "	118	1,571	612	101	71	2,473
60 - 64 "	103	1,268	684	93	72	2,220
65 - 69 "	67	614	684	64	40	1,469
70 years +	129	467	1,510	68	24	2,198
<b>Total, female</b>	<b>20,332</b>	<b>21,492</b>	<b>4,101</b>	<b>924</b>	<b>446</b>	<b>47,295</b>
<b>1985</b>						
<b>Male</b>						
0 - 4 years	2,115	—	—	—	—	2,115
5 - 9 "	2,685	—	—	—	—	2,685
10 - 14 "	3,036	4	—	1	—	3,041
15 - 19 "	3,655	51	—	—	—	3,706
20 - 24 "	4,228	1,337	2	6	5	5,578
25 - 29 "	2,878	3,481	10	44	25	6,438
30 - 34 "	1,263	3,128	9	98	44	4,542
35 - 39 "	447	2,293	11	95	43	2,889
40 - 44 "	163	1,454	7	73	15	1,712
45 - 49 "	80	1,125	8	48	15	1,276
50 - 54 "	43	950	28	38	9	1,068
55 - 59 "	46	1,215	64	36	14	1,375
60 - 64 "	38	1,371	95	24	14	1,542
65 - 69 "	20	880	99	18	13	1,030
70 years +	32	885	320	13	19	1,269
<b>Total, male</b>	<b>20,729</b>	<b>18,174</b>	<b>653</b>	<b>494</b>	<b>216</b>	<b>40,266</b>
<b>Female</b>						
0 - 4 years	2,033	—	—	—	—	2,033
5 - 9 "	2,456	—	—	—	—	2,456
10 - 14 "	2,818	4	—	—	—	2,822
15 - 19 "	3,229	433	2	—	—	3,644
20 - 24 "	3,522	3,042	3	16	8	6,591
25 - 29 "	2,426	4,016	25	91	26	6,584
30 - 34 "	1,276	3,087	35	109	42	4,549
35 - 39 "	629	2,114	44	126	42	2,955
40 - 44 "	289	1,362	68	83	26	1,828
45 - 49 "	158	1,203	116	91	40	1,608
50 - 54 "	108	1,213	244	77	44	1,686
55 - 59 "	110	1,290	489	81	53	2,023
60 - 64 "	126	1,056	618	80	57	1,937
65 - 69 "	84	540	578	52	40	1,294
70 years +	133	392	1,399	52	30	2,006
<b>Total, female</b>	<b>19,397</b>	<b>19,752</b>	<b>3,621</b>	<b>858</b>	<b>408</b>	<b>44,036</b>

**2.40 Persons granted Canadian citizenship**

Year	Number	Year	Number
1970	57,556	1978	223,018
1971	63,558	1979	156,699
1972	80,866	1980	118,590
1973	104,697	1981	94,457
1974	130,278	1982	87,468
1975	137,507	1983	90,328
1976	117,276	1984	109,504
1977	107,899	1985	126,466

**Sources**

- 2.1 - 2.23 Census Operations Division, Statistics Canada.
- 2.24 - 2.33 Health Division, Statistics Canada.
- 2.34 - 2.39 Public Affairs, Department of Employment and Immigration.
- 2.40 Promotion and Education, Department of the Secretary of State.





## CHAPTER 3

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# HEALTH

## CHAPTER 3

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## HEALTH

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## THEN




In 1872, under the heading "Scientific Items", the following medical remedy was listed:

"Fever and Ague—The Cleveland (Ohio) 'Herald' gives the following very simple remedy for this disease: 'A teaspoonful of common salt taken in water, and a teaspoonful put inside each stocking next the foot just as the chill is coming on.' The editor of the paper vouches for the efficacy of this treatment." (1872)

"Wear and Repair of the Brain—The notion that those who work only with the brain require less food than those who work with their hands is

fallacious, mental labor causing greater waste of tissue than physical. Three hours of hard study wear out the body more than a whole day of physical exertion. One-fifth of the blood goes to the brain, though its average weight is only 1/40th that of the body. This fact alone is sufficient to prove that brain workers need more and better food than mechanics and laborers." (1873)



**DR. ANDREWS'**  
**PRIVATE**  
**MEDICAL DISPENSARY!**  
*37, Colborne Street.—Up Stairs.*

Entrance on Exchange lane, Toronto, Ont. Hours from 10 A.M. to 3 P.M. No advice charged for. Medicines sent by mail to order. Parties wishing to obtain any of the special remedies can do so with perfect secrecy, as the office to the Dispensary is so arranged that it is impossible for patients calling to see other.

## NOW

The major current health problems of Canadians, aside from those resulting in death, include arthritis and rheumatism, disorders of the back, limbs and joints, mental disorders, allergies and dental trouble.

Average life expectancy reached 72.0 years for males and 70.8 years for females in 1985.

In 1985, there were 491 people for every physician in Canada down from 585, ten years earlier. The provincial ratio ranged from 450 : 1 in Quebec to 775 : 1 in Prince Edward Island.



## CHAPTER 3

# HEALTH

### 3.1 Health status

Most Canadians enjoy a quality of life equal to or better than that of the people of most other countries. The burden of ill-health on individuals has eased enormously over the past 50 years, and many infectious diseases that were once prevalent have now been virtually eliminated.

Overall mortality rates have significantly declined since early in the 20th century. As Canada moved into public insurance coverage of health care services, there was a further decline in specific areas. The leading causes of death are cardiovascular diseases, cancer and accidents. Hospital morbidity data reinforce the need for dealing with heart disease, stroke, cancer, accidents and respiratory disease. They also point out the considerable burden of ill-health imposed by mental disorders.

The major current health problems Canadians live with, apart from those which result in death, include arthritis and rheumatism, disorders of back, limbs and joints, mental disorders, allergies, and dental trouble.

To improve significantly the health status of Canadians, future emphasis must be on the reduction of risks to health and the early detection of health problems. Improvements in the rehabilitation of people afflicted by disease or handicap would contribute to their well-being and quality of life.

To obtain information on the health status and risk exposure of the Canadian population, for use in program planning and policy development, the federal government carried out a health survey in 1978-79 as a joint project of Health and Welfare Canada and Statistics Canada.

The survey considered not just diseases and disability but also lifestyle, environment and socio-economic factors. Information came from interviews and questionnaires. About 12,000 homes (38,000 individuals) were visited. *The health of Canadians: report of the Canada Health Survey* was released in July 1981. Computer tapes of the data base are available to users.

The survey was influenced by the guidelines spelled out in *A new perspective on the health of Canadians*, a National Health and Welfare (NHW) working document published in 1974. This approach to health planning is in line with the program and policy initiative of the World Health Organization, *Health for all by the year 2000*, which Canada endorsed.

Most recently, the National Health Promotion Survey was carried out in 1985 by Statistics Canada for the Health Promotion Directorate of Health and Welfare Canada. While the Canada Health Survey determined the levels and demographic correlates of certain lifestyle behaviours and preventive health practices, the Health Promotion Survey, in addition to updating this information, is expected to provide a comprehensive picture about Canadians' levels of knowledge about, and attitudes toward, those behaviours.

The Health Promotion Survey data, which represent the responses of about 11,000 adult Canadians, are intended to answer questions such as: What do Canadians do to promote their health? Do they eat properly, exercise, follow good safety and prevention practices, avoid tobacco, drugs and alcohol? What do Canadians think, feel and know about health, and how do these factors relate to what they do?

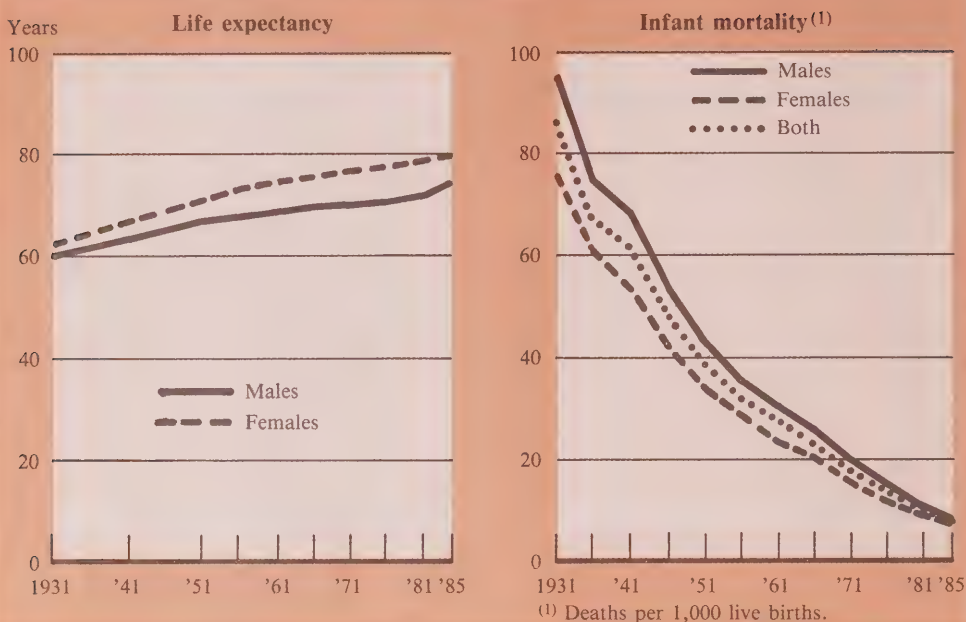
The main findings of the survey were published by Health and Welfare Canada in *The Active Health Report* in April 1987.

The growing recognition of the importance of preventive behaviour, self-care and social support in the attainment of better health status is reflected in *Achieving Health for All: A Framework for Health Promotion*, published in November 1986. This report is intended to stimulate discussion and research on how public participation, community-based services, mutual aid and self-care may be brought together to address remaining health challenges in Canada.

#### 3.1.1 Life expectancy

Life expectancy at birth, or mean length of life, is a convenient way of summarizing the state of

Chart 3.1

**Trends in life expectancy and infant mortality, 1931-85**

mortality and is to some extent an indicator of the population's overall health status. High life expectancy attained in industrialized nations attests to the success of the battle against infectious diseases, which were a threat primarily during the first year of life.

Canada has a high average life expectancy for both males and females that compares favourably with leading countries such as Sweden and Japan. It reached 71.9 years for males and 79.0 for females in 1981. The continued decline in age-specific death rates has resulted in further improvements in longevity for Canadian males and females since 1981. According to preliminary life tables prepared for the 1983-85 period, average life expectancy has increased by approximately one year for both males and females, reaching 72.9 years for males and 79.8 years for females (Table 3.2). Although the gap between male and female life expectancy has decreased since 1976, female life expectancy remains nearly seven years greater than that for males.

The primary change since 1931 has been not so much the length of old age as the proportion of the population reaching this level. Under prevailing conditions in 1931, 66% of the male

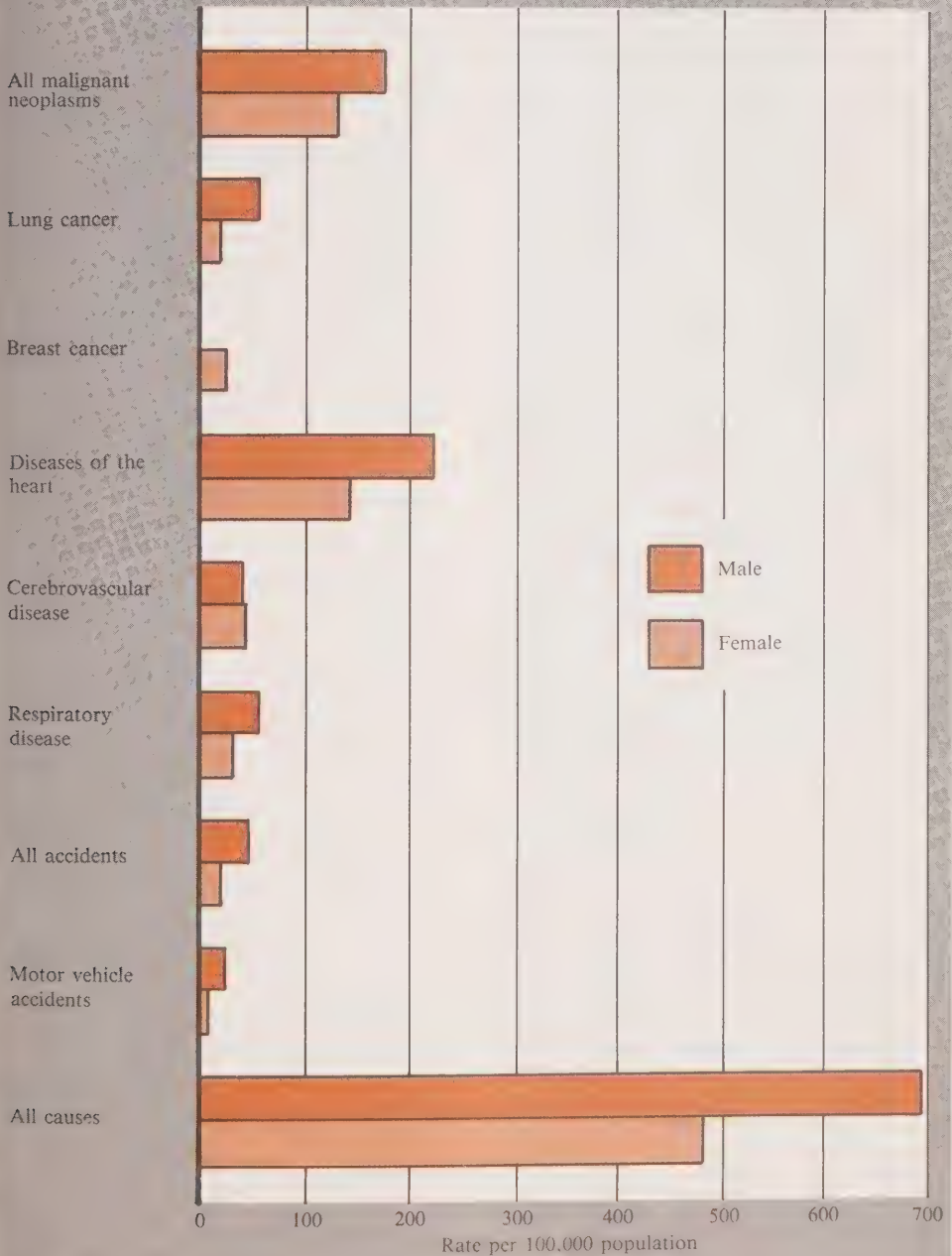
population could expect to reach the age of 60; by 1981 the proportion had increased to 83%; the corresponding figures for females were 68% and 90%. (*Longevity and historical life tables 1921-1981 (Abridged), Canada and the Provinces*, Statistics Canada 89-506, July 1986.)

**Infant mortality.** A major reason for the overall increase in life expectancy at birth is the drop in infant mortality. Death rates for infants under one year of age declined about 78% between 1953 and 1985. Improvement is due to factors such as better health care before and after birth, and to improved nutrition and living standards. However, the death rate in recent years remains 20% to 24% higher for male infants than for females.

### 3.1.2 Causes of death

The increase in life expectancy that has been observed in Canada and other countries throughout this century is the result of the shift in the cause pattern of mortality toward degenerative diseases that occur primarily in the older age groups. For example, in 1921, while heart disease and cancer were among the leading causes of death, as they are today, they accounted for just

Chart 3.2

**Standardized death rates<sup>(1)</sup>, by selected causes and sex, 1985**

(1) Age-standardized to the 1971 Canadian population.

16% of total deaths. By 1985, this figure had increased to 58% of total deaths. Over the same time period, infectious diseases such as tuberculosis, which accounted for 15% of total deaths in 1921, diminished to less than 1% of total deaths in 1985.

An examination of leading causes of death by age group for 1985 shows that below age 45, accidents are by far the leading cause of death. This is particularly true for males, as males aged 5-19 are more than twice as likely to die in accidents as females and in the 20-44 age range their death rate due to accidents is more than four times as high as that for females. Malignant neoplasms were the leading cause of death among females aged 20-44 in 1985, at a rate slightly greater than that for males. Suicide was among the leading causes of death for both males and females below age 45 in 1985, although it occurs much more frequently among males. In the 20-44 age range, for example, suicide was the second-ranking cause of death for males and the third-ranking cause for females; however, the male suicide rate, at 27.1 per 100,000 population, was more than four times as great as that for females (6.5).

In the 45-64 age range diseases of the heart were the most frequent cause of death among males in 1985, while malignant neoplasms were the leading cause among females. Males were much more likely to die of heart disease in this age range than females. While the female death rate for malignant neoplasms was at a level of 78% of the male rate, the female death rate for diseases of the heart was just over 30% of the level of the rate for males.

Among the Canadian population aged 65 and over, diseases of the heart were the leading cause of death for both males and females in 1985 by a wide margin, followed by malignant neoplasms. Accidents were the fifth-ranking cause of death in this age group, although they accounted for just over 2% of total deaths. The female death rate for malignant neoplasms decreases to a level of about 58% of the rate for males in the 65 and over age group, compared to a level of 80% or greater in the younger age groups.

**Potential years of life lost (PYLL)** is a useful indicator of premature deaths. It allows heavier weight to be given to deaths occurring at younger ages. This calculation is applied to deaths occurring between birth and age 75, multiplying the number of deaths in a specific age group by the remaining years of life to age 75.

An examination of the potential years of life lost for 10 leading causes in 1985 is shown in Table 3.6. Several contrasts emerge when leading causes of PYLL are compared to leading causes of death. First, while malignant neoplasms are the second-ranking cause of death at all ages, they are the leading cause of PYLL and death among deaths under age 75. Second, accidents and suicide have a much greater impact on PYLL than on the number of deaths. While these causes accounted for 11% of deaths below age 75 in 1985, they accounted for 23% of potential years of life lost. There is also a marked sex difference in PYLL due to accidents and suicide. These causes accounted for nearly three and one-half times as many potential years of life lost among males as females, and they represented 28% of PYLL for males, compared with just 15% for females. The emphasis of the PYLL indicator on early mortality gives greater significance to causes of death such as perinatal mortality and congenital anomalies, which account for less than 3% of deaths under 75 but represent over 10% of PYLL.

**Death rates by leading causes and by sex.** The total death rate for all causes has declined slightly more for males than for females during the 1975-85 period, which is also reflected in the slight convergence of male and female life expectancy. The greatest percentage declines in death rates by leading cause in this period have occurred for cerebrovascular disease, which has dropped by 40% for both males and females, followed by diseases of the heart, where the death rates have declined by more than 20% for both males and females. Among the leading causes of death, malignant neoplasms were the only cause for which death rates increased during the 1975-85 period, by about 5% for both males and females. Within this category, there has been a dramatic increase in the female death rate from lung cancer, which nearly doubled between 1975 and 1985. Table 3.5 examines the five leading causes of death, by age group and sex in 1985.

### 3.1.3 Morbidity and disability

The measure used to express morbidity is patient-days in general and allied special hospitals. The leading causes of hospitalization in 1982-83 were heart disease, mental disorder, stroke, accidents and respiratory disease.

For babies up to a year old, respiratory diseases accounted for 29% of hospital days, and were the leading cause of hospitalization. For children of 1-14 years, the leading causes were respiratory diseases and accidents.



Childbirth, accidents and mental disorder are the three main reasons why Canadians from 15 to 44 years old are admitted to hospital. In the next age group, 45-64 years, heart disease leads with 10% of hospital days. Next are mental disorder and disease of the nervous system.

Among the elderly the leading causes of hospitalization are heart disease, stroke and respiratory disease.

The Canadian Health and Disability Survey (*Report of the Canadian Health and Disability Survey, 1983-84*, Statistics Canada Catalogue 82-555) was a household survey administered as a supplement to the Canadian Labour Force Survey in October of 1983 and June of 1984. The combined results are intended to be representative of the Canadian population, excluding those living in the Yukon and Northwest Territories, persons living on Indian reserves, full-time members of the armed forces and inmates of institutions (the exclusions constitute less than 3% of the population). This survey represents a first attempt at the collection of national data on the prevalence of disability according to the functional definitions of disability and handicap accepted by the World Health Organization. In this survey, adult respondents aged 15 or over were considered disabled if they indicated that they had trouble performing any one of 17 activities of daily living, such as walking up and down a flight of stairs, or if they experienced a limitation in the kind or amount of activity they could perform at home, work or school because of a long-term physical condition or health problem, or if they had a mental handicap. Children under the age of 15 were classified as disabled on the basis of using one or more of a number of aids or prostheses; if they had a long-term health condition that limited activities normal for a child of that age; if they were required to attend a special school or classes because of a physical condition or health problem; or if they had other specified long-term health conditions. Highlights from the survey follow.

Among the adult population, 12.8%, representing nearly 2.5 million Canadians, reported some level of disability. The rate of disability increased with age, from a low of 3.8% among those aged 15-24 to 38.6% of those aged 65 or over.

The most frequently reported types of disability were those related to mobility, such as climbing stairs. Mobility problems were reported by 65% of disabled persons. Difficulties with body movements, such as reaching for

things (agility) were reported by 54% of disabled persons. These were followed by hearing and seeing disabilities. Uncorrected hearing disabilities were reported by 634,000 Canadians, and 331,000 reported uncorrected seeing disabilities. For each disability mentioned, the respondent was asked to identify the main condition or health problem that caused the disability. The most prevalent disabling conditions for adults were diseases of the musculoskeletal system and connective tissue, arthritis and rheumatism, and hearing disorders.

Although many disabled adults were already using special aids or devices, many reported either unmet needs or additional requirements for aids. An estimated 85,000 persons reported the need for some feature such as ramps or elevators, to improve access to housing. Approximately 120,000 persons expressed the need for mobility aids such as handrails within their houses; 83,000 people with a hearing disability required hearing aids, and 20,000 with a seeing disability reported the need for a pair of glasses.

The Canadian Health and Disability Survey also found that disability tends to be accompanied by socio-economic disadvantage. Disabled adults are much less likely to be employed, and much more likely to be classified as "not in the labour force" than those who are not disabled. In the 15-64 age range, 42% of those reporting a disability were employed, compared to 67% of those who were not disabled. More than one-half (52%) of disabled adults aged 15-64 were not in the labour force (not working and not looking for work), compared with one-quarter (25%) of non-disabled adults in the same age range.

Disabled adults are more likely to have received fewer years of formal education than those without disability. Of those reporting a disability, 44% had eight or fewer years of schooling, compared to 17% of the non-disabled population. Conversely, 15% of those with a disability had either received some postsecondary education or had completed a degree or diploma, compared with 32% of the non-disabled population. This tendency applied to both younger and older age groups.

Lower incomes tend to be reported among disabled adults than among non-disabled adults, and this is due, in part, to the lower levels of labour force participation among disabled adults. A comparison of income levels between those who reported a disability and the total Canadian population (the Canadian Health and Disability Survey did not collect data on income from the non-disabled respondents, thus the

comparisons are made with the total population, based on the results of the 1984 Survey of Consumer Finances) indicated that 31% of income recipients in the total population had incomes of \$20,000 or more, compared with 15% of those with a disability. Approximately 414,000 disabled adults indicated receiving income from one or more pension and/or assistance plans; disability pensions from the Canada Pension Plan or the Quebec Pension Plan were the most frequently cited sources of such incomes.

Many disabled adults were restricted in their ability to travel and those who were able to leave their homes may have required special transportation. Among the 2,448,000 disabled adults, 158,000 were unable to leave their residences because of their condition or health problems; 302,000 could not take long-distance trips and 121,000 reported that they could not travel at all.

Local public transportation was available to 59% of those who were able to leave their homes, and among those who did have access, some 281,000 persons (or 21%) reported difficulties in using it. The most frequently mentioned difficulties concerned getting on or off the bus or streetcar, or simply getting to the bus stop. Some communities have a special bus or van service for people who cannot use regular public transport. Approximately 142,000 disabled adults indicated a need for this service, of whom 80,000 indicated that it was available to them. Those disabled adults who were able to leave their homes and make trips of more than 80 kilometres were asked if they had difficulty using each of three modes of long-distance public transportation. Problems with air travel were mentioned by 7%, difficulties in travelling by bus were mentioned by 15% and 7% mentioned problems in travelling by rail. Boarding was the most frequently reported problem for each mode of transport.

Approximately 302,000 children under the age of 15, or 6% of the Canadian population in this age group, were identified as disabled. This prevalence increased from 4% of those aged 0-4 to 7% among those aged 10-14.

Disabled children were most likely to be identified by being reported to have an activity limitation at school, play or in other typical activities (110,000); other categories frequently mentioned were learning disabilities (66,000), heart conditions (40,000), hearing trouble (33,000) and other chronic health problems (37,000). For the 110,000 children with a general activity limitation, diseases of the respiratory system were the most common cause (23%) of such limitation.

Of the 224,000 disabled children aged 5-14 in Canada, many required special schooling. In October 1983, 12,000 disabled children who were going to school attended special schools. A further 10,000 children were attending special classes in a regular school and 31,000 were attending a mix of regular and special classes. A learning disability was the most frequently cited problem requiring attendance at special schools or classes.

A more comprehensive survey of disabled Canadians was conducted by Statistics Canada in 1986-87. The survey extended coverage to include the Yukon and Northwest Territories, Indian reserves and the population living in special care facilities. Initial results of the new survey are expected in 1988.

### 3.1.4 Specific health conditions

**Mental disorders** treated in psychiatric hospitals and general hospitals on an in-patient basis were responsible for approximately 11 million patient-days in 1982-83, with psychiatric hospitals accounting for 61% of these days, and general hospitals accounting for 39% (Table 3.20). During the last decade, the number of patient-days for mental disorders has been increasing in general hospitals and decreasing in psychiatric hospitals.

General hospitals are primarily used for short-term intensive treatment of mental disorders, whereas psychiatric hospitals are used for both short- and long-term treatment. In psychiatric hospitals the median length of stay in 1982-83 for males and females was 27 days and 32 days, respectively, while in general hospitals it was 9 days and 11 days, respectively (Table 3.21).

An examination of patient-days by diagnoses indicates that in psychiatric hospitals the largest utilization of patient-days was for cases diagnosed as schizophrenic, organic psychotic conditions and mental retardation, while in general hospitals it was for cases diagnosed as organic psychotic conditions, schizophrenic, and affective psychoses (Table 3.21).

Although the number of patient-days for mental disorders in general hospitals was less than the number of patient-days in psychiatric hospitals, the number of separations for mental disorders was greater in general hospitals than in psychiatric hospitals (Table 3.21). In 1982-83 general hospitals reported 155,261 cases diagnosed as mentally ill, whereas in psychiatric hospitals the number of cases reported was 34,256. In terms of the number of separations, the three most common diagnoses in general hospitals were neurotic disorders, affective

psychoses and alcohol dependence syndrome; whereas in psychiatric hospitals the three most common diagnoses were schizophrenia, affective psychoses and personality disorders.

**Heart disease** caused one of every four deaths in 1982. Over the past decade, death rates have been gradually declining. The Canada Health Survey showed that about 800,000 Canadians had heart problems in 1979; over half were persons of working age. It was estimated that heart problems caused 300,000 persons to be restricted in their daily activities and over 100,000 persons to have disability days. Over 250,000 patients separated from hospital in 1982-83 were treated for heart disease.

**Cancer** accounted for more than one of every five deaths; 40% of persons who died from cancer were in their working years or younger. Over the previous decade the death rate gradually increased due largely to a 50% increase in deaths from cancer of the respiratory system. Over 228,000 patients treated for active or suspected cancer were separated from hospital in 1982-83.

Provincial registries reported a total of 82,454 new primary sites of cancer in 1982, representing an increase of 1.9% over the 80,949 cases reported in 1981. (Skin cancers other than melanoma are excluded from the incidence totals due to differences in reporting among the provinces.) Among the provinces, the highest incidence rates were observed in Manitoba, Ontario and Prince Edward Island. Lung cancer was the most frequently reported site of these new cases (12,428), followed by female breast cancer (10,300). All forms of cancer accounted for 41,964 deaths in Canada in 1982. As was the case for the incidence of new primary sites of cancer, Manitoba had the highest death rate from cancer, at 195 per 100,000 population. British Columbia had the highest rate of hospitalization for cancer in 1981-82 at 884 per 100,000 population. Among the major sites of cancer, lung cancer caused by far the greatest number of deaths in 1982, at 10,121 deaths, followed by female breast cancer, at 3,646 deaths. These two sites also accounted for the greatest numbers of hospital separations. Male prostate cancer was the third-ranking cause of hospitalization for cancer, at a rate of 104 per 100,000 males.

**Respiratory diseases** have had a relatively stable overall pattern with a small increase proportionate to the population increase. These diseases strike at all ages, though 78% of fatal illness occur after age 65. The average hospital stay is

seven to eight days. Nearly twice as many men as women die from respiratory disease, largely due to the much higher male death rate from the category bronchitis, emphysema and asthma.

**Fatal cerebrovascular disease (stroke)** is primarily a condition of old age, with only 15% of deaths occurring before age 65. Deaths among men are more common at earlier ages, but elderly women over age 75 account for a large proportion of deaths from this condition. More men than women are admitted to hospital, but the days of care provided in hospital for women suffering from stroke exceeds that for men by over 30%.

**Accidents and violence.** Accidental injuries, poisoning, suicides, and assaults in 1982 resulted in 6,286 deaths and 288,360 persons discharged from general hospitals. Of the deaths, 53% were male and 47% were female, and of the persons discharged from hospitals, 58% were male and 42% female. However, the length of hospital stay was higher for females (15 days) than males (10 days), resulting in the utilization of 1,854,895 patient days by females and 1,777,418 patient days for males.

**Alcohol-related problems** are a major social and health issue in our society. In 1981 there were an estimated 397,000 males and 189,000 females suffering from the alcohol dependence syndrome (formerly termed alcoholism). Since 1960 the total number of persons afflicted with this disorder has increased by 157% and, in terms of rates per 100,000, the increase was 85%.

The number of deaths in Canada classified as directly attributable to alcohol was 3,063 in 1982, of which approximately 78% were due to chronic liver disease and cirrhosis. Most alcohol-related deaths occur among men and in individuals aged 60 and over. Heavy drinkers have an overall mortality rate more than twice as high as a comparable group in the general population with the same age and sex composition. They have particularly high mortality rates for suicide, upper digestive and respiratory cancers, stomach and duodenal ulcers, pneumonia and accidents.

In 1982, the blood alcohol concentration (BAC) levels of 75% of individuals involved in the 1,564 driver fatalities in Canada were tested. Of the fatalities tested, 60% indicated the presence of alcohol with 35% having more than twice the legal limit. This situation has remained virtually unchanged over the past decade.

There were 143,424 persons charged with alcohol-related traffic offences in 1982, an increase of 52% since 1971. These alcohol-related traffic offences accounted for 91% of



all persons charged with traffic offences under the Criminal Code, compared with 81% in 1971.

Persons treated for alcohol-related problems are more likely to suffer from a wide variety of general health disorders. They show an excess of cardiovascular conditions, respiratory conditions, digestive conditions, accidents, endocrine and metabolic disorders, nervous system disorders, mental disorders, hearing disorders, skin disorders, dental problems and arthritis.

In 1982, there were 1,425 divorces with "addiction to alcohol" cited as the cause of marriage breakdown, which accounted for 5% of all causes. (*Statistics on Alcohol Use, 1984*, Addiction Research Foundation of Ontario.)

The number of cases separated in 1982-83 from psychiatric hospitals and general hospitals with a primary diagnosis of alcohol dependence syndrome and alcoholic psychoses was 28,156 and accounted for 592,959 patient days. In 1972 there were 35,326 separations reported utilizing 794,891 patient days. Of these separations in 1982-83, 80% were male and 20% were female with a median age of 47 and 45, respectively. In psychiatric hospitals the median length of stay was 29 days, while in general hospitals it was six days.

**Notifiable diseases** are communicable diseases which physicians are required by law to report so that public health officials are aware of possible epidemics and may determine the effectiveness of public health programs such as immunization. The data represent cases and not individuals. The rate of reported cases of tuberculosis has continued to decline throughout the 1970s and 1980s; the rate of 8.5 per 100,000 in 1985 was less than one-half of the rate in 1971 (21.2). Measles vaccine has been in use in Canada since the mid-1960s, and since the early 1980s all provinces have given measles elimination a high priority through immunization and education programs. The rate of reported cases of measles declined sharply in the early 1980s, dropping from 57.7 per 100,000 in 1980 to 3.8 per 100,000 in 1983. The increase in the rate observed in 1984 indicates that there may be a number of children with inadequate immunization. (Canada Diseases Weekly Report, Volume 12-21, May 1986.) In the area of sexually transmitted disease, the rate of reported cases of gonococcal infections has declined since 1981, from 231.4 cases per 100,000 population, to 160.6 per 100,000 in 1985, while the rate for cases of syphilis remains about the same as that observed in the early 1980s. Since the early 1980s public health officials have become increasingly

concerned about the incidence of Acquired Immunodeficiency Syndrome (AIDS). (National Advisory Committee on Aids, *Aids in Canada: What You Should Know*, Health and Welfare Canada, 1986.) AIDS is caused by a virus which attacks the body's immune system. Most persons with AIDS have been exposed to the virus through sexual contact with infected individuals, and it has occurred in a small number of people who received blood products or blood transfusions from donors infected with the virus. From the first case of AIDS diagnosed in Canada in 1979, the annual number has risen rapidly, to 329 cases in 1986. Of the 855 cases diagnosed in Canada between 1979 and December 1986, one-half have died (52%).

## 3.2 Canadian health system

### 3.2.1 Government responsibility

Governmental involvement in health in 1867, at Confederation, was minimal. For the most part, individuals were compelled to rely on their own resources and those of the family group: hospitals were administered and financed by private charities and religious organizations.

The only specific references to health matters in the distribution of legislative powers between the two levels of government under the Constitution Act, 1867 (formerly named the British North America Act, 1867) allocated to the federal Parliament jurisdiction over quarantine and the establishment and maintenance of marine hospitals, and to the provincial legislatures jurisdiction over the establishment, maintenance and management of hospitals, asylums, charities and charitable institutions in and for the province, other than marine hospitals. Presumably, this was meant to cover most health care services. Furthermore, since the provinces were assigned jurisdiction over all matters generally of a local or private nature in the province, it is probable that this power covers health care, while the provincial power over municipal institutions provided a convenient means for dealing with such matters. The provision of most health care services, therefore, has been acknowledged as primarily a provincial responsibility.

In addition to the powers of the federal Parliament to legislate in certain areas, the Constitution gave it the power to spend monies from the consolidated revenue fund on any object, providing the legislation authorizing the expenditures did not amount to a regulatory scheme falling within provincial powers. This spending power of the federal Parliament



enabled it to make payments to provinces and persons in fields where it had little or no regulatory authority: for example, hospital and medical care insurance programs, health resources, health grants programs, and fitness and amateur sport. It also enabled the federal government to undertake research and to provide information and consultative services.

Responsibility for health in Canada is thus shared between the federal and provincial governments. At the federal level Health and Welfare Canada is the principal agency for health matters. Its main objectives are to maintain and improve the quality of life of all Canadians, including their physical, economic and social well-being. These objectives are pursued in conjunction with other federal agencies and with provincial and local governments.

The federal government, through Health and Welfare Canada, is responsible for providing for the health needs of Indians and Inuit, public servants, certain groups of immigrants and refugees and residents of the Northwest Territories and Yukon. The department also provides diagnosis, treatment and preventive health services, prosthetic services, civil aviation medicine, health services in both peacetime and wartime emergencies, quarantine and regulatory inspection of arrivals to Canada, and immigration medical services.

In addition, under the Canada Assistance Plan, the federal government pays 50% of the cost of various health and social services to persons in need. This program was enacted in 1966 to complement other health and welfare programs; it is administered by provincial governments. Health benefits, under the Canada Assistance Plan, vary from province to province, and may include such services as eyeglasses, prosthetic appliances, dental services, prescribed drugs, home care services, and nursing home care.

Since the federal and provincial governments share responsibility for health, a formal structure has been established for federal-provincial co-operation. It comprises the following: Conference of Ministers of Health; Conference of Deputy Ministers of Health; and federal-provincial Advisory Committees on Institutional and Medical Services, Community Health, Health Human Resources, Mental Health, International Health Affairs, and Environmental and Occupational Health. The conferences of ministers and deputy ministers of health convene periodically to discuss all matters related to health, including the promotion, protection,

maintenance and restoration of health of Canadians. The advisory committees and the conferences of ministers and deputy ministers may set up sub-committees and ad hoc working groups, to deal with particular subjects requiring more detailed study.

### 3.2.2 Health insurance plans

Canada does not have a single national health insurance plan. Instead, nationwide health insurance is achieved through a series of interlocking provincial/territorial plans, all sharing common elements. To qualify for federal financial support, provincial/territorial hospital and medical care insurance plans must meet minimum federal legislation criteria: comprehensiveness of coverage of services, universal population coverage, reasonable accessibility to services, portability of benefits, and non-profit plan administration by a public agency. The plans are designed to ensure that all residents of Canada have access, on a prepaid basis, to needed medical and hospital care.

Until 1984, federal participation in the national health insurance programs had been governed by provisions of the Hospital Insurance and Diagnostic Services Act, 1957, and the Medical Care Act, 1966-67. Effective April 1, 1984, the Canada Health Act consolidated the provisions of these two acts into one and, by identifying and strengthening the program conditions and criteria, it reaffirmed Canada's commitment to a universal, prepaid public national health insurance program. The financing component of the system comes under the Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act, 1977.

**Hospital insurance.** The Hospital Insurance and Diagnostic Services Act, 1957, which came into effect in July 1958, was designed to make available to all eligible residents a wide range of hospital and diagnostic services at little or no direct cost to the patient. All provinces and territories have participated in the national program since 1961. The programs include all acute, general, chronic and convalescent hospital services medically required. Excluded are hospitals for the mentally ill, tuberculosis sanatoria, and nursing homes or institutions whose primary purpose is custodial care. Insured hospital services vary from province to province, but a fairly comprehensive range is provided in all provinces. Additional benefits may be included in the plans at the province's discretion without affecting the federal-provincial agreements.

The individual may select the hospital in which he or she is treated provided the physician has admitting privileges. During a temporary absence, coverage is portable anywhere in the world for emergency in-patient services, and in most provinces for out-patient services also. Benefits are subject to provincially regulated maxima for rates of payment, length of hospital stay and, in cases of non-emergency services, prior approval by the provincial plan.

The principles of availability and portability of benefits are reflected in provisions of each provincial insurance plan. Although the plans in general stipulate a waiting period of three months when a person moves from one province to another, coverage will continue from the province of previous residence. First-day coverage is generally provided for the newborn, immigrants, and certain other categories of persons without prior coverage in other provinces. A health insurance supplementary fund has been established for residents who have been unable to obtain coverage or who have lost coverage through no fault of their own.

**Medical care insurance.** The Medical Care Act, 1966-67 authorized the federal government to make payments to provinces which operate medical care insurance plans meeting certain minimum criteria. Federal contributions became payable in July 1968. By early 1972, all 10 provinces and both northern territories had met the federal criteria. Since then, virtually the entire eligible population has been insured for all medically required services of physicians, plus a limited range of surgical-dental services in hospitals. Physicians' services such as examinations for life insurance which are not medically required are not covered. Also excluded are services to treat work-related conditions already covered by worker compensation or other federal legislation.

There can be no dollar limit or exclusion except when a service is not medically required. The federal program includes services traditionally covered as benefits by the health insurance industry, and also preventive and curative services traditionally covered through the public sector in each province, such as medical care of patients in mental and tuberculosis hospitals and preventive services provided to individuals by physicians in public health agencies.

A uniform terms and conditions clause in the act is intended to ensure that all residents have unimpeded access to insured services. This condition prevents discrimination on the basis of

health, age, non-membership in a group, or other considerations. If a premium system of financing is selected, subsidization in whole or in part for low-income groups is permitted. The individual province may determine whether insurance will be voluntary or compulsory.

Under the Canada Health Act, utilization charges at the time of service are discouraged as it is believed that they impede, either by their amount or by the manner of their application, reasonable access to necessary medical care, particularly for low-income groups.

**Provincial and territorial plans.** Methods of organizing, financing and administering health insurance plans vary. In some provinces, hospital and medical care plans are administered directly by provincial departments of health. In others, the plans are under separate public agencies reporting directly to the responsible provincial minister. Some provinces have one plan administered by the department of health and the other by a public agency.

Until 1977, the federal government reimbursed the provinces for about 50% of approved expenditures for services provided under the provincial hospital and medical care insurance plans. With the introduction of established programs financing legislation in April 1977, the federal contributions to the provinces were no longer tied to provincial spending but to the average rate of growth in gross national product and population changes. Contributions took the form of a cash transfer plus a transfer of tax and associated equalization payments to the provinces. Provinces must continue to meet criteria under federal legislation to be eligible for financing. Per capita cash contributions were also made to the provinces toward the cost of certain extended health care services, such as nursing homes, and adult residential, ambulatory and home care services. Methods of administering and financing these programs and the provision of associated services are left to the provinces.

Each province is free to determine how its share of the cost will be financed. Most provinces finance their share from general revenue, while Ontario, Alberta, British Columbia and Yukon impose premiums. Premium assistance is available in these provinces for certain categories of residents with limited income, and premium exemption is provided in Alberta and Ontario for most residents over 65 years of age.

Arrangements likewise vary across provinces for delivery of medical services and payment of physicians. Most physicians are paid on a

fee-for-service basis. This accounts for about 95% of the cost of insured medical services nationally. Other arrangements include salary, sessional payments, contract services, capitation and monetary incentives to settle and remain in medically underserved areas.

### 3.2.3 Health services

Canadians seeking health care have access to a comprehensive range of services from a broad spectrum of health care workers and organizations.

**Institutional services.** Under the Canada Health Act, hospitals provide full hospital and medical services to all in-patients through the provincial health insurance plans. These include standard ward services, and all approved and available diagnostic, treatment and rehabilitation services. Thus, in-patients have access at no charge to the full range of services available in hospitals, according to accreditation standards and appropriate to the hospital's level of specialization and range of programs.

Hospital services are provided through a network of over 1,048 general, teaching, pediatric, and allied specialty hospitals with an approved bed complement of over 170,700 or approximately 6 to 7 beds per 1,000 of the Canadian population. Of these, nearly one-half are short-term medical and surgical beds, while nearly one-quarter are for extended care (including chronic care) in long-term care units of these public general hospitals; over half of the hospitals have under 100 beds each.

**General health services.** Physician services under the provincial health insurance plans include the full range of required medical and surgical services. All community services for ambulatory care as well as necessary medical follow-up services for all patients discharged from hospitals are available through their own personal physicians. Medical services to Canadian residents are provided by almost 52,000 physicians (including interns and residents), or approximately one physician for every 491 population.

For non-hospitalized patients, hospitals in all provinces normally provide medically required diagnostic laboratory and radiological services, physiotherapy, occupational therapy, social work counselling, emergency services where available in the particular hospital, and clinical out-patient services where approved by the provincial plan. Out-patient services covered by the plans may also include, depending on the availability at the particular hospital and provincial approval, speech therapy and audiological services,

psychiatric therapy, psychiatric day care and/or night care, diabetic day care, day care surgery, cancer therapy, dietetic counselling, inhalation therapy, ambulance services, hemodialysis, medical orthoptics, electrocardiograms, electroencephalograms, and many other ambulatory services.

In addition to these community health care benefits provided through provincial health insurance plans, provinces have the option to provide additional benefits, and, in fact, many provinces do provide a wide range of additional benefits at no charge to eligible patients. It should be noted, however, that provinces are under no obligation to provide additional benefits on a universally accessible basis, so these benefits are frequently provided on a restricted basis, such as age-restricted dental services for children, or chiropractic services to a prescribed maximum. Additional benefits under some provincial plans include the services of dentists, optometrists, psychologists, chiropractors, podiatrists, naturopath physicians, osteopaths as well as home care services, drugs, and general preventive medical services. In order to be eligible for health insurance coverage of these additional benefits, patients must normally be referred by a medical doctor. Canadians may also purchase, on an individual fee-for-service basis, any of these health services or other alternate therapies not available through their particular provincial plan.

**Health service networks.** Health care services are extended across Canada with provinces relying on a number of strategies to provide services to all Canadians, including those in remote areas. These include, for example, regional flying ambulance services; in some areas flying health teams consisting of a variety of specially trained health professionals; training programs for community health aides; and extensive health promotion, accident prevention and health education programs.

These decentralized community and outreach services are integrated with networks of basic and specialized medical and hospital services, organized regionally under provincial co-ordination. Smaller hospitals typically provide the core hospital services of medical/surgical, obstetrics, pediatrics, and possibly intensive care and psychiatric services. Secondary and tertiary referral hospitals, providing a broader range of specialized and intensive services, are most frequently located in larger population centres. Hospitals providing services requiring close affiliation with research and advanced technology are generally affiliated with university health sciences centres. Health professionals similarly



extend primary health care services in Canadian communities, with additional health specialties made available as required through collaborative regional referral plans under provincial co-ordination and occasionally involving inter-provincial co-ordination for the more specialized or rare treatment requirements.

**Primary health care and evolving patterns of health services.** All traditional institutional and professional health services have now been available to all Canadians for about two decades. Changes in morbidity and mortality patterns worldwide, along with changing aspirations and values relating to personal, social and environmental well-being, have highlighted the importance of well-being and the quality of life, health promotion and disease prevention. Thus, concerns for health and well-being now focus on responsible health behaviours, safer environments, and on patient awareness and participation in health matters, particularly in health care choices. Primary health care at the community level embraces a comprehensive range of public, voluntary, professional and consumer health organizations. These new partners in health are dedicated to such concerns as health education, early detection, accident prevention, mental health, reproductive health, palliative care, women's health, occupational health, environmental health, neglect and family violence, the health of immigrant and refugee groups and many others.

**Standards.** The provincial and territorial responsibility for health sciences and educational programs, certification of health personnel, allocation and management of health care resources and delivery of health care services creates a decentralized health care delivery system at the provincial and territorial level. This decentralized responsibility requires national networking, co-ordination, information-sharing, as well as joint planning and standard-setting, which are developed under the aegis of the federal and provincial committee structure and the professional associations.

To improve quality of care across Canada and establish national frameworks of common goals, policies and procedures, guidelines are developed for special services in hospitals and clinical guidelines for various disciplines. These guidelines address a wide range of health concerns including infection control, vital organ transplantation, periodic health examinations, newborn care, dental hygiene, occupational therapy and physiotherapy.

### 3.2.4 Health protection

Federal and provincial programs protect the public against unsafe foods, drugs, cosmetics, and medical and radiation-emitting devices, against harmful microbiological agents, technological and social environments, against environmental pollutants and contaminants, and against fraudulent drugs and devices.

**Food safety,** cleanliness and nutritional quality standards are developed through laboratory research and evaluation of data produced by private and public sectors, and international sources. Standards are maintained by inspection and analysis of foods of both domestic and imported origin. Regulations prescribe maximum levels for residue of agricultural chemicals in foods and use of food additives. Both are subject to pre-market evaluation before they can be used in food sold in Canada.

**Drugs.** On the principle that Canadians should have access to drugs that are both safe and effective and that new drugs are cleared for marketing and post-marketing, surveillance is maintained. Manufacturers of new drugs with unknown properties are required by law to submit evidence of the safety and effectiveness of their products, including information about therapeutic properties and side effects.

**Environmental health.** Responsibilities include studying adverse effects on human health of the chemical and physical environment, investigating the health effects of tobacco smoke, and ensuring the safety, effectiveness and non-fraudulent nature of radiation-emitting and medical devices. Health hazard assessments are developed for work and home environments, pesticides, household products, air and water. Research is conducted on radiation hazards, and adverse effects of environmental chemicals.

**Disease control.** A laboratory centre in Health and Welfare Canada is developing improved diagnostic procedures and other measures to combat communicable disease agents, and is producing and distributing standardized diagnostic reagents to federal, provincial and other health organizations. A national reference service is provided to identify disease-producing bacteria, viruses and parasites. A co-operative federal-provincial program assures laboratory quality and proficiency testing. Communicable disease control is addressed through epidemic outbreak investigations, seasonal surveillance of influenza, monitoring of sexually transmitted diseases and newly emerging conditions such as Reye syndrome and Acquired Immunodeficiency



Syndrome. Surveillance is maintained of birth defects, cancer, cardiovascular diseases, poisoning and adverse drug reaction.

### 3.2.5 Public health and community health

Health departments, in co-operation with regional and local health authorities, administer such services as environmental sanitation, communicable disease control, maternal and child health, school health, nutrition, dental health, occupational health, public health laboratories and vital statistics. Most provinces have delegated certain responsibilities to health units in rural regions and to municipal health departments in urban centres. Several provinces provide services directly to their thinly populated northern areas.

**Maternal and child health.** Consultant services of health departments co-operate with the public health nursing services. Maternal and child health services also undertake studies and help train nursing personnel. At the local level, public health nurses provide services to mothers, the newborn and children through clinics, home and hospital visits and school health services.

**Nutrition and health education.** Health departments and some municipal or regional health offices employ nutrition consultants and/or health educators to extend guidance to health and welfare agencies, schools, nursing homes, various community service agencies and other institutions. They provide diet counselling to selected patient groups such as diabetics, and conduct nutritional surveys and other research. Most provincial health departments have a division or unit of health education. Many educational activities are directed to accident prevention, health promotion and to changing habits harmful to health, such as smoking and the excessive use of alcohol and other drugs.

**Dental health.** Public health programs have been largely preventive, but emphasis is now being given to dental treatment. Dental clinics conducted by local health services are generally restricted to pre-school and younger school-age groups. A number of provinces send dental teams to remote areas. All provinces have dental care schemes of varying coverage for welfare recipients. Other dental health programs are directed to training dentists, dental hygienists, nurses, therapists and assistants, conducting dental surveys and extending water fluoridation.

**Communicable disease control.** In larger provinces, health departments have divisions of communicable disease control. In others this function is combined with one or more community health

services. Local health authorities organize public clinics for immunization against diphtheria, tetanus, poliomyelitis, whooping cough, rubella and measles.

**Public health laboratories.** Provinces maintain central public health laboratories and have branch laboratories to assist local health agencies and the medical profession in protection of community health and control of infectious diseases. Public health bacteriology (testing of milk, water and food), diagnostic bacteriology and pathology are the principal functions of the laboratory service, together with medical testing for physicians and hospitals.

**Rehabilitation and home care.** Rehabilitation services are provided by public and voluntary agencies in several types of institutions, including hospitals, separate in-patient facilities, worker compensation board centres, and out-patient centres. Financing is from various federal, provincial and voluntary agency sources. Every province includes some institution-based services under hospital and medical care insurance. In some provinces coverage is extended to the supply and fitting of certain prosthetic and assistive devices.

Home care has developed in a variety of ways. Some programs are oriented to specific disease categories. Some are attached to specific hospitals or community centres. Others are integral parts of comprehensive health care delivery systems. The range of services varies from nursing services alone to a complete array of health and social services. Some programs concentrate on patients requiring short-term active treatment. Others treat convalescent or chronic patients. The objectives are the reduction of institutional costs and length of stay, and continuity of care and provision of co-ordinated health care services to patients for whom home care is the most appropriate level of care.

Most home care programs have two features: centralized control and co-ordinated services to meet the changing needs of the patient. In some provinces the departments of health play an active role in financing and administration of home care programs. In others, local agencies, municipalities and hospitals assume major responsibility for home care.

Special schools or classes for various groups of disabled children are usually operated by school boards. Most schools for the deaf and for the blind are residential schools operated by provincial governments.

A program for the vocational rehabilitation of disabled persons, initiated in 1952, has been

administered by Health and Welfare Canada since April 1973. The federal government shares the costs incurred by the provinces in providing comprehensive services for vocational rehabilitation of physically and mentally disabled persons. Services include social and vocational assessment, counselling, training, maintenance allowances, provision of tools, books and other equipment, remedial and restorative treatments, and provision of prosthetic and orthotic appliances, wheelchairs, and other mobility aids.

### 3.2.6 Health promotion and physical activity

Health promotion is the process of enabling people to increase control over and to improve their health. It is an approach to health which recognizes the importance of quality of life as a dimension to everyday living. Health promotion is viewed as a new kind of public health in which importance is given to achieving, maintaining and improving health. Health promotion includes three basic mechanisms; self-care, mutual aid and the creation of healthy environments. All sectors of society have a role to play in preserving and enhancing the health of Canadians. For health promotion this role is seen to include fostering public participation in order that people assert greater control over factors affecting their lives; strengthening community health services; and co-ordinating the health aspects of public policies.

Areas where health promotion efforts are presently underway include family health, adolescent sexuality, nutrition, impaired driving, mental health, tobacco use, and social support for seniors. Health promotion is taking place formally or informally in a variety of settings including health and social services, schools, training centres, the workplace, homes, neighbourhoods and community centres.

Health promotion is increasingly gaining merit as an approach which responds effectively to current and future health concerns.

A Canada fitness survey was undertaken in 1981 by Fitness and Amateur Sport Canada to assess fitness levels of a representative cross-section of the population. The survey findings revealed that 56% of Canadians aged 10 and over are physically active. The survey also revealed that, despite increased participation, Canadians are still not as fit as they could be: only 25% are active enough to potentially benefit their cardiovascular health.

Fitness and Amateur Sport Canada seeks to increase awareness of the importance of fitness and encourage greater participation in physical

activity of Canadians including sub-population groups such as low-skill and handicapped persons, teenagers, blue-collar workers, rural residents and older adults. This is accomplished via numerous programs and activities which could be grouped under four key areas: promotion — co-ordinating Canada's Fitweek, formerly the National Physical Activity Week, and supporting the PARTICIPaction Program; leadership — developing guidelines for the training of fitness leaders and programs to train management volunteers; participation — increasing the number of opportunities for Canadians to participate in physical activity and encouraging the provision of adopted activity opportunities for certain target groups; and research — facilitating the conduct of research projects and national surveys and the dissemination of results. These activities are carried out in conjunction with or on the basis of liaison and co-ordination between the various levels of government, national associations, private sector partners, volunteers and practitioners in the field.

### 3.2.7 Voluntary agencies

Voluntary agencies are very much involved in the health field. Health departments in Canada recognize and support the intrinsic worth of voluntary action in developing and providing services to promote health and well-being. Historically, voluntary groups have played a major role in promoting public awareness and action leading to the development of Canadian health systems and social services. The voluntary sector, with its grassroots involvement, is in a position to be aware of emerging problems, evolve innovative responses and mobilize rapidly to meet perceived human needs. Thus the work of the voluntary sector is complementary to government efforts. The annual value of volunteer labour is estimated at about \$1 billion in the health and social services sector. In 1986-87, Health and Welfare Canada provided sustaining grants totalling \$2.9 million to 51 national voluntary organizations to assist in the operation of their national offices and in carrying out their national responsibilities. In addition, research and project contributions are made toward a wide variety of activities of an innovative or demonstration nature.

### 3.2.8 Research and planning

Total expenditures for health science research and related scientific activities in Canada in 1985 were estimated at more than \$350 million. Federal contributions were estimated at \$175 million.

Responsibility for funding scientific activities is shared among the federal government, private non-profit organizations, private industry and provincial governments. Basic and applied biomedical research is funded primarily by the Medical Research Council of Canada, a variety of non-profit organizations, such as the Canadian Cancer Society, and several provincial research-funding programs. Most of this research is performed in universities and affiliated teaching hospitals. Applied health research, including the development of health care delivery systems, is funded by Health and Welfare Canada and by other organizations, both provincial and private. The provinces not only provide some funds for the direct costs of activities carried out in universities and hospitals but also, through operating grants, provide for indirect costs including the salaries of principal investigators. Related activities include the training of research scientists, scientific data collection, information dissemination, economic and feasibility studies and testing and standardization.

In federal laboratories, work is concerned with standards and regulations to safeguard the quality and safety of foods, cosmetics, pesticides, drinking water and air, and the safety and effectiveness of drugs, radiation-emitting and medical devices. Surveillance is maintained over chronic and infectious diseases; factors affecting their diagnosis and containment are investigated. In universities, most investigations concern physiological and biochemical bases of health and disease. In hospitals, diseases and disabilities are investigated; treatments (both medical and surgical) are developed and tested. In industry new pharmaceuticals and medical devices are developed. New technologies are developed and tested ranging from hardware, such as medical devices, to strategies for the management of certain medical conditions, such as provision of special care units. Health concerns include: the improvement of lifestyles and self-management of health; reproductive health; occupational health; mental health; and the special health problems of particular population groups, such as the elderly, northern residents, native peoples and the disabled.

Most federal grants supporting health science research in universities and hospitals are channelled through the Medical Research Council. It provides grants-in-aid of operating and equipment requirements for research projects and direct support for investigators and research trainees. It offers incentives for research both in productive fields where major contributions

may be expected and in fields or regions where research is not adequately developed. Support is given for meetings, international scientific activities and exchange of scientists. The budget of the council was \$146 million for 1985-86, up \$3.4 million from the fiscal year 1984-85.

The National Health Research and Development Program provided \$18.7 million for health research and related scientific activities in 1985-86. Among the 439 projects supported were studies on the availability, accessibility and quality of health care and the development of models for more cost-effective delivery of health services; investigations into illness prevention and the promotion of healthy lifestyles and behaviour patterns; assessments of genetic, socio-cultural and environmental health risks; research dealing with the health of native peoples; rehabilitation; and population immune status and communicable disease control. To meet a constant need for qualified human resources in population disciplines, the program assisted 97 students at the masters and doctoral levels and 62 established health research scientists.

### 3.3 Health human resources and facilities

Canadians are served by a system of hospital and medical care complemented by a broad range of other health services. In 1985, health workers included almost 52,000 physicians, 250,000 registered nurses, 13,000 active licensed dentists and a large pool of other health professionals in such activities as diagnostic, treatment, rehabilitation, public health and health promotion.

**Physicians.** The number of active civilian physicians in Canada, including interns and residents, increased at a rate far exceeding population growth from 1975 to 1985 (Table 3.25). There was an increase of almost 33% in the number of physicians while the population grew 11.4%. The 33% increase in the number of physicians was largely due to an inflow of graduates of Canadian medical schools averaging more than 1,750 per year during the last 10 years. During the same period, the number of immigrant physicians averaged about 350 per year. The number of physicians whose country of last permanent residence was Canada who were granted permanent residence status in the United States reached a high of 725 in 1977. In the US, fiscal years ending on September 30 of 1984 and 1985, the number was 164 and 169, respectively.

The number of persons per physician was 585 in 1975 and 491 in 1985. In the 10 provinces the



ratio ranged from 459:1 in Quebec to 775:1 in Prince Edward Island. Some of these inter-provincial differences are due to the number of physicians in training. Excluding interns and residents, the 1985 population-per-physician ratios ranged from 511:1 in British Columbia to 820:1 in New Brunswick.

In 1985, 51.5% of active civilian physicians, excluding interns and residents, were general practitioners and family physicians. The remaining 48.5% were certificated specialists. The proportion of certificated specialists was 49.6% in 1975, after growing from about 43% in 1961 to a high of 50.2% in 1973.

**Dentists.** The number of active dentists increased 49.1% from 1975 to 1985, having kept far ahead of the population growth rate of 11.4% during the same period (Table 3.26). Canada had one dentist per 2,619 people in 1975. The ratio was 1:1,985 in 1985. During the decade no new dental schools were opened. Most schools had relatively stable numbers of graduates. Laval University graduated 16 students in 1976, and 31 in 1985. At the University of Alberta the increase was from 42 in 1976 to 69 in 1985.

**Nurses.** Nurses represent about two-thirds of all health human resources in Canada and are an integral part of the health care system. Historically, nurses have been predominantly female (99.2% in 1970), but there has since been an increase in the number of male nurses; the percentage of female nurses decreased to 97.4% in 1985. About 36% of nurses worked part-time (less than 35 hours per week) in 1985.

**Pharmacists.** The number of licensed pharmacists increased from 13,872 in 1975 to 18,813 in 1985 (Table 3.29). There were 658 graduates of pharmacy schools in 1985, 16 more than in 1975. Beginning in 1976, women graduating outnumbered men; 64% of all graduates of pharmacy schools in 1985 were women.

**Optometrists.** In 1985, there were 2,594 active optometrists in Canada or one per 9,831 persons. This was an increase from one per 12,587 persons in 1975 (Table 3.27). Graduating classes of the two schools of optometry were small in comparison with other professional health disciplines. In 1985, 41 people graduated from the University of Montreal School of Optometry, 5 less than in 1975. A total of 55 graduated in 1985 from the only other school, the University of Waterloo, an increase of 8% over the number of graduates in 1975.

**Facilities.** In 1986, there were 1,048 public, private and federal hospitals operating and 5,607 special care facilities such as nursing

homes and homes for the elderly. The rate of public hospital beds per 100,000 persons decreased 25% from 1970 to 1977-78 but there was an increase in the rated bed capacity in special care facilities and by 1986 the total number of these facilities had increased to 5,607.

### 3.4 Use of health services

**Physician services.** Medical care insurance plans in the 10 provinces made fee-for-service payments for 149 million visit services (office, hospital and home) in 1984-85, at a rate of just under six services per insured person. In addition they paid for 1.8 million major and 2.5 million minor surgical procedures. Of a further 103 million services, close to 70 million were radiology and laboratory services, while the remaining 33 million consisted of obstetrical, anaesthetic, surgical assistance, and assorted other diagnostic and therapeutic services. The above total of about 256 million services does not include out-of-province payments made by provincial medical care insurance plans, services provided to residents of the two northern territories, and millions of services provided by physicians under other arrangements, such as services for which payments were made on a salary or other non-fee basis, services that were the responsibility of Workers' Compensation Boards, uninsured services, and services provided to uninsured persons.

Of the total fee-for-service payments made by provincial medical care insurance plans, about 41% were made for services provided to male patients. Fee payments per insured person aged 65 and over were just over twice as high as payments made per person under age 65.

**Dental services.** Canadians spent about \$2,200 million on dental care in 1985, slightly less than 6% of total health expenditures.

A significant health care development since 1970 has been the growth of dental insurance. Approximately 13.6 million Canadians, 55.8% of the population, were insured by third-party payment schemes in 1982.

**Hospital services.** Patients spent over 52 million days in public hospitals in the 1985-86 fiscal year, including more than 8 million days in mental institutions. While the number of days spent in general and allied special hospitals had increased each year from 1978, the number of days spent in mental hospitals for the same period decreased. This was the result of extensive changes in the treatment locations for many mental patients and not a decrease in the prevalence of mental disorders.



During the 1970s there was a change in emphasis toward integrating mental patients into the community instead of isolating them in institutions. This trend is reflected through shorter hospital stays, follow-up programs of out-patient visits to psychiatric clinics and special care facilities, and drug therapy.

The rate of patient-days in hospitals varied by sex and age. In the child-bearing years of the 15-24 and 25-44 age groups, the rate for women was double that for men. In the 45- to 64-year-old group, men had the higher rates, most likely because men suffer more heart ailments than women. After the age of 65, both men and women had a high rate of days of hospital care.

Length of stay in hospital also varied by age. Up to 44 years of age, people stayed in hospital for an average of one week. For the 45- to 64-year-old group, the average stay increased to 12 days in 1982-83. Patients 65 years old or more averaged 25 days in hospital at a time.

### 3.5 Financing and expenditures

The overall cost of health in Canada, including expenditures by the private sector and by all levels of government, reached nearly \$39.2 billion in the calendar year 1985 (preliminary data). That figure was up 6.3% from 1984, following annual increases of 11.1% in 1983 and 7.9% in 1984. The 1985 total was about 18 times the amount in 1960. On a per-person basis, the 1985 figure was \$1,543, or \$78 more than the year before and nearly triple the 1975 average.

In 1985, per capita health costs ranged from \$1,721 in Alberta (and \$2,861 in the territories) to \$1,279 in Prince Edward Island. British Columbia (\$1,618 per person), Manitoba (\$1,615), and Ontario (\$1,554) also had costs higher than the national average of \$1,543.

Before 1970, health expenditures took an increasing proportion of the Gross National Product (GNP). From 5.5% in 1960, this share rose to 7.1% in 1970; it oscillated between 6.8% and 7.4% for the next decade. A sharp increase to 8.5% in 1982 was more a result of a relatively small increase in the GNP than of an unusually large increase in health expenditures. From then until 1985 it varied only slightly.

The distribution of total health expenditures by type of service has remained relatively

unchanged during the 1975 to 1985 period. Institutional and related services accounted for about 55% in 1975 and fell gradually to 52% a decade later. Professional services took 22% or 23% throughout. Drugs and appliances rose slowly from 11% in 1975 to 13% in 1985, while the category "Other health expenses", which includes public health, capital expenditure, research, and the cost of insuring services, accounted for 12% or 13% every year.

The development across Canada of governmental plans for the provision of health care on an insured basis (hospital care; physician services; and, under individual provincial governments, various other categories of health needs such as dental care and prescription drugs) has made the governments' overall share of health costs increase substantially. From 42 cents on the dollar in 1960 (when hospital insurance was already largely in place), the share rose to 76 cents in 1975. It remained within one cent of that in each year of the succeeding decade.

### 3.6 International health

Through the Department of National Health and Welfare, Canada is involved in the work of the Commonwealth ministers of health, the Pan-American Health Organization, the World Health Organization, other United Nations specialized agencies and other intergovernmental organizations whose programs have a substantial health component. Similarly, the department takes part in bilateral exchanges with other countries and belongs to several international social policy-related organizations.

Each year Canadian experts in public health and in the health sciences undertake assignments abroad as special advisers or consultants at the request of the World Health Organization, the Pan-American Health Organization or one of the other agencies.

Health and Welfare Canada enforces regulations under agreements between Canada and other countries. Other responsibilities include the custody and distribution of biological, vitamin and hormone standards and certain duties in connection with an international convention on narcotic drugs. Provincial departments and agencies are involved through the federal-provincial Advisory Committee on International Health Affairs.

#### Sources

Information Systems Directorate, Policy, Communications and Information Branch, Health and Welfare Canada; Health Division, Social Statistics Field, Statistics Canada.

TABLES

- .. not available

... not appropriate or not applicable

— nil or zero

-- too small to be expressed
- e estimate

p preliminary

r revised

certain tables may not add due to rounding

3.1 Life expectancy, Canada

Year	Males				Females			
	At birth	20 years	40 years	60 years	At birth	20 years	40 years	60 years
1931	60.00	49.05	31.98	16.29	62.10	49.76	33.02	17.15
1941	62.96	49.57	31.87	16.06	66.30	51.76	33.99	17.62
1951	66.33	50.76	32.45	16.49	70.83	54.41	35.63	18.64
1956	67.61	51.19	32.74	16.54	72.92	55.80	36.69	19.34
1961	68.35	51.51	32.96	16.73	74.17	56.65	37.45	19.90
1966	68.75	51.50	33.01	16.81	75.18	57.37	38.15	20.58
1971	69.34	51.71	33.22	16.95	76.36	58.18	38.99	21.39
1976	70.19	52.09	33.59	17.23	77.48	58.95	39.67	21.96
1981	71.88	53.39	34.72	17.96	78.98	60.08	40.73	22.85
1983-85	72.92	54.20	35.43	18.39	79.83	60.81	41.38	23.36
Gains								
1931-76	10.19	3.04	1.61	0.94	15.38	9.19	6.65	4.81
1931-85	12.92	5.15	3.45	2.10	17.73	11.05	8.36	6.21

3.2 Life expectancy at birth, selected countries

Country	Year	Males (M) years	Females (F) years	Difference F - M
Japan	1984	74.54	80.18	5.64
Sweden	1983	73.62	79.61	5.99
Switzerland	1961-82	72.70	79.60	6.90
Netherlands	1982-83	72.75	79.48	6.73
Denmark	1982-83	71.50	77.50	6.00
France	1981	70.41	78.47	8.06
Canada	1983-85	72.92	79.83	6.91
Spain	1975	70.41	76.21	5.80
Australia	1983	72.09	78.72	6.63
Israel	1983	72.52	75.92	3.40
United States	1983	71.00	78.30	7.30
England and Wales	1981-83	71.34	77.35	6.01
Cuba	1977-78	71.45	74.91	3.46
Italy	1974-77	69.69	75.91	6.22
Poland	1983	67.04	75.16	8.12
Portugal	1975	65.09	72.86	7.77

3.3 Infant mortality rate per 1,000 live births, Canada, 1921-85

Year	Male	Female	Both sexes	Year	Male	Female	Both sexes
1921	98.2	77.4	102.1	1940	63.6	51.1	57.6
1922	97.3	75.9	101.6	1941	68.3	53.0	61.1
1923	98.2	77.4	103.4	1942	61.1	48.8	55.4
1924	86.1	70.9	93.9	1943	60.7	48.7	55.0
1925	86.7	70.0	92.7	1944	62.0	49.9	56.3
1926	113.0	90.0	101.6	1945	57.5	46.6	52.5
1927	104.7	83.8	94.5	1946	53.0	42.0	47.8
1928	100.0	80.3	90.2	1947	51.8	40.0	46.2
1929	102.9	82.5	92.9	1948	49.2	38.9	44.4
1930	99.9	81.0	90.6	1949	48.2	38.1	43.4
1931	95.7	76.0	86.0	1950	46.2	36.5	41.5
1932	82.9	65.9	74.6	1951	42.7	34.0	38.5
1933	82.7	65.1	74.1	1952	42.5	33.6	38.2
1934	81.5	63.7	72.7	1953	39.8	31.0	35.6
1935	81.4	63.2	72.5	1954	35.8	27.9	31.9
1936	74.5	60.3	67.7	1955	35.0	27.5	31.3
1937	85.7	68.4	77.4	1956	35.0	28.7	31.9
1938	71.5	56.5	64.2	1957	34.5	27.2	30.9
1939	69.0	53.3	61.4	1958	33.7	26.4	30.2

### 3.3 Infant mortality rate per 1,000 live births, Canada, 1921-85 (concluded)

Year	Male	Female	Both sexes	Year	Male	Female	Both sexes
1959	31.8	24.7	28.4	1973	17.4	13.6	15.5
1960	30.8	23.7	27.3	1974	16.6	13.4	15.0
1961	30.5	23.7	27.2	1975	15.9	12.6	14.3
1962	30.6	24.3	27.6	1976	15.0	11.9	13.5
1963	29.6	22.9	26.3	1977	13.5	11.2	12.4
1964	27.8	21.4	24.7	1978	13.3	10.5	12.0
1965	26.2	20.8	23.6	1979	12.2	9.5	10.9
1966	25.8	20.2	23.1	1980	11.6	9.2	10.4
1967	24.2	19.6	22.0	1981	10.8	8.4	9.6
1968	22.9	18.6	20.8	1982	10.3	7.8	9.1
1969	21.7	16.9	19.3	1983	9.3	7.7	8.5
1970	21.2	16.3	18.8	1984	8.9	7.2	8.1
1971	19.9	15.1	17.5	1985	8.7	7.1	7.9
1972	19.1	15.0	17.1				

### 3.4 Infant deaths and stillbirths, Canada

Type	Number						Rate <sup>1</sup>					
	1980	1981	1982	1983	1984	1985	1980	1981	1982	1983	1984	1985
Infant deaths (less than 1 year)	3,868	3,562	3,401	3,182	3,058	2,982	10.4	9.6	9.1	8.5	8.1	7.9
Neonatal deaths (less than 28 days)												
Less than 7 days	2,092	2,037	1,873	1,740	1,629	1,641	5.6	5.4	5.0	4.6	4.3	4.4
7 to 27 days	378	322	346	300	313	313	1.0	0.9	0.9	0.8	0.8	0.8
Total	2,470	2,359	2,219	2,040	1,942	1,954	6.7	6.4	5.9	5.5	5.2	5.2
Post-neonatal deaths (28 days to 1 year)	1,398	1,203	1,166	1,142	1,116	1,028	3.8	3.2	3.1	3.0	3.0	2.7
Stillbirths (28+ weeks gestation)	1,952	1,972	1,923	1,828	1,678	1,629	5.3	5.3	5.2	4.9	4.4	4.3
Perinatal deaths (stillbirths plus deaths at less than 7 days) <sup>1</sup>	4,044	4,009	3,796	3,568	3,307	3,270	10.9	10.7	10.1	9.5	8.7	8.7

<sup>1</sup> Perinatal rates per 1,000 live- and still-born infants; all other rates per 1,000 live births.

### 3.5 Five leading causes of death<sup>1</sup>, by age group and sex, 1985

Cause	Total		Male		Female	
	No.	Rate <sup>2</sup>	No.	Rate <sup>2</sup>	No.	Rate <sup>2</sup>
All ages						
Diseases of the heart	58,330	230.1	32,762	261.3	25,568	199.5
All malignant neoplasms	46,333	182.7	25,534	203.6	20,799	162.3
Respiratory disease	14,056	55.4	8,570	68.4	5,486	42.8
Cerebrovascular disease	13,874	54.7	5,930	47.3	7,944	62.0
All accidents	9,621	37.9	6,498	51.8	3,123	24.4
Under 1 year <sup>3</sup>						
Causes of perinatal mortality	1,212	322.6	697	360.7	515	282.2
Congenital anomalies	954	253.9	504	260.8	450	246.6
Sudden death, cause unknown	330	87.8	200	103.5	130	71.2
Respiratory disease	76	20.2	46	23.8	30	16.4
All accidents	66	17.6	42	21.7	24	13.2

3.5 Five leading causes of death<sup>1</sup>, by age group and sex, 1985 (concluded)

Cause	Total		Male		Female	
	No.	Rate <sup>2</sup>	No.	Rate <sup>2</sup>	No.	Rate <sup>2</sup>
1-4 years						
All accidents	240	16.2	150	19.8	90	12.5
Congenital anomalies	111	7.5	59	7.8	52	7.2
All malignant neoplasms	60	4.1	37	4.9	23	3.2
Respiratory disease	37	2.5	20	2.6	17	2.4
Homicide	17	1.1	10	1.3	7	1.0
5-19 years						
All accidents	1,223	22.0	865	30.3	358	13.2
All malignant neoplasms	253	4.5	143	5.0	110	4.1
Suicide	239	4.3	199	7.0	40	1.5
Congenital anomalies	87	1.6	41	1.4	46	1.7
Homicide	66	1.2	41	1.4	25	0.9
20-44 years						
All accidents	3,513	33.7	2,814	53.8	699	13.4
All malignant neoplasms	2,175	20.9	993	19.0	1,182	22.7
Suicide	1,756	16.8	1,417	27.1	339	6.5
Diseases of the heart	1,107	10.6	887	17.0	220	4.2
Homicide	324	3.1	212	4.1	112	2.2
45-64 years						
All malignant neoplasms	14,112	290.4	7,772	325.3	6,340	256.7
Diseases of the heart	10,712	220.5	8,119	339.9	2,593	105.0
All accidents	1,711	35.2	1,206	50.5	505	20.4
Respiratory disease	1,464	30.1	922	38.6	542	21.9
Cerebrovascular disease	1,451	29.9	802	33.6	649	26.3
65 years and over						
Diseases of the heart	46,440	1,758.3	23,716	2,129.7	22,724	1,487.7
All malignant neoplasms	29,722	1,125.3	16,582	1,489.0	13,140	860.2
Respiratory disease	12,176	461.0	7,406	665.1	4,770	312.3
Cerebrovascular disease	12,102	458.2	4,967	446.0	7,135	467.1
All accidents	2,868	108.6	1,421	127.6	1,447	94.7

<sup>1</sup> Leading causes of death for both sexes but not necessarily the leading causes for male or female.<sup>2</sup> Per 100,000 population.<sup>3</sup> Per 100,000 live births.

## 3.6 Potential years of life lost (PYLL) by selected causes and sex, 1985

Cause of death	PYLL between 0 and 75 years				Deaths between 0 and 75 years (both sexes)	
	Males No.	Females No.	Total No.	%	No.	%
All malignant neoplasms	222,862	194,178	417,040	24.2	30,592	31.8
Diseases of the heart	220,537	75,422	295,959	17.2	26,582	27.7
Motor vehicle accidents	122,275	45,667	167,942	9.8	3,999	4.2
All other accidents	97,012	26,679	123,691	7.2	3,656	3.8
Suicide	87,827	21,316	109,143	6.3	3,113	3.2
Congenital anomalies	47,794	43,108	90,902	5.3	1,369	1.4
Causes of perinatal mortality (excluding stillbirths)	51,930	38,505	90,435	5.3	1,214	1.3
Respiratory disease	37,462	22,583	60,045	3.5	5,115	5.3
Cerebrovascular disease	26,450	22,855	49,305	2.9	4,370	4.5
All other causes	198,096	117,892	315,988	18.3	16,098	16.8
Total	1,112,245	608,205	1,720,450	100.0	96,108	100.0



### 3.7 Standardized<sup>1</sup> death rates<sup>2</sup>, by selected causes and sex, 1975 and 1985

Cause of death	Males			Females			Both sexes		
	1975	1985	% change	1975	1985	% change	1975	1985	% change
All malignant neoplasms	165.3	173.8	+5.1	124.6	130.2	+4.5	143.9	149.9	+4.2
Lung cancer	47.1	56.0	+18.9	10.4	20.3	+95.2	28.4	37.3	+31.3
Breast cancer	—	—	—	26.2	27.1	+3.4	—	—	—
Diseases of the heart	296.9	223.1	-24.9	186.2	144.5	-22.4	239.7	181.3	-24.4
Cerebrovascular disease	67.5	40.2	-40.4	71.4	44.3	-38.0	69.1	42.2	-38.9
Respiratory disease	65.8	58.2	-11.6	33.2	31.0	-6.6	48.5	43.0	-11.3
All accidents	76.2	48.1	-36.9	31.6	21.2	-32.9	53.9	34.5	-36.0
Motor vehicle accidents	36.6	22.5	-38.5	14.0	9.6	-31.4	25.3	16.0	-36.8
Total, all causes	849.3	693.5	-18.3	577.6	480.8	-16.8	708.5	579.8	-18.2

<sup>1</sup> Age-standardized to the 1971 Canadian population.

<sup>2</sup> Per 100,000 population.

### 3.8 Prevalence of health problems<sup>1</sup>, by age group and sex, latest available year<sup>2</sup>

Problem	Under 15 years		15-64 years		65+ years		All ages	
	Male	Female	Male	Female	Male	Female	Male	Female
Mental disorders	3.9	1.4	24.9	44.9	7.5	17.4	36.3	63.7
Diabetes	2.2	2.2	27.0	35.5	11.8	23.8	39.2	60.8
Thyroid disorders	—	—	8.1	69.3	5.0	17.0	13.7	86.3
Anemia	—	3.9	5.6	67.9	2.7	15.8	12.4	87.6
Headache	1.7	1.9	22.9	66.4	1.9	5.1	26.5	73.5
Sight disorders	3.7	4.3	25.4	40.1	8.4	18.1	37.5	62.5
Hearing disorders	6.4	6.0	31.8	21.6	20.8	13.4	59.0	41.0
Hypertension	—	—	26.5	36.1	11.4	26.0	37.9	62.1
Heart disease	—	0.8	28.0	23.5	21.5	25.0	50.6	49.4
Acute respiratory	21.0	20.0	22.6	32.1	1.8	2.4	45.4	54.6
Influenza	14.7	15.3	27.8	37.1	1.1	4.0	43.6	56.4
Bronchitis and emphysema	7.5	4.9	28.1	36.7	14.0	8.8	49.6	50.4
Asthma	17.7	8.1	27.1	32.7	8.3	6.2	53.1	46.9
Hay fever	10.3	7.8	33.8	42.7	1.7	3.7	45.8	54.2
Dental problems	6.2	8.3	32.5	42.1	4.9	5.9	43.6	56.4
Gastric and duodenal ulcers	—	—	48.2	34.5	9.6	6.8	58.6	41.4
Digestive disorders	3.7	2.8	25.9	37.2	12.0	18.4	41.7	58.3
Skin disorders	9.8	10.9	24.1	48.4	2.8	4.2	36.6	63.4
Arthritis and rheumatism	0.2	—	22.5	41.8	11.8	23.3	34.6	65.4
Limb and joint disorders	1.7	1.3	40.8	37.8	8.2	10.3	50.6	49.4
Trauma	7.5	4.3	45.6	30.8	3.5	8.2	56.6	43.4
Other	5.0	4.5	22.7	45.6	7.8	14.3	35.5	64.5

<sup>1</sup> "Prevalence" refers to existing conditions reported at the time of the interview and therefore includes both acute and chronic conditions.

<sup>2</sup> 1978-79.

Source: *The Health of Canadians, Report of the Canada Health Survey*, Health and Welfare Canada, Statistics Canada, 1981.

### 3.9 Rates of selected notifiable diseases, selected years, per 100,000 population

Disease	1971	1976	1980	1981	1982	1983	1984	1985
Tuberculosis	21.2	13.7	11.5	10.4	10.0	9.5	9.4	8.5
Hepatitis	40.7	18.1	10.6	9.0	10.2	13.4	17.8	19.2
Gonococcal infections	159.5	227.3	221.6	231.4	215.5	181.9	174.6	160.6
Syphilis	11.5	17.2	12.4	11.8	9.3	9.7	12.2	10.3
Salmonella infections	19.4	12.7	35.7	33.8	34.9	35.6	44.5	31.5
Measles	34.6	39.8	57.7	9.5	4.3	3.8	16.2	11.1
Rubella	58.3	18.1	13.1	7.1	12.1	29.8	7.2	9.8
Pertussis	13.9	13.1	12.0	10.8	9.4	9.0	5.4	9.4

## 3.10 Cancer incidence, mortality and hospital separations, 1982

Province or territory of residence	Number of cases			Rate per 100,000 population		
	New primary sites <sup>1</sup>	Deaths from cancer	Hospital separations with cancer <sup>2,3</sup>	New primary sites	Deaths from cancer	Hospital separations with cancer <sup>2,3</sup>
Newfoundland	1,247	763	2,872	219.1	134.0	505.4
Prince Edward Island	448	228	983	365.0	185.7	802.0
Nova Scotia	2,136	1,632	6,737	250.6	191.5	793.2
New Brunswick	2,138	1,246	5,082	305.8	178.2	729.9
Quebec	22,348	11,084	35,108	344.7	171.0	544.3
Ontario	31,991	15,420	67,762	367.0	176.9	783.6
Manitoba	4,004	2,020	7,822	386.8	195.1	761.0
Saskatchewan	3,415	1,792	7,420	348.7	183.0	763.0
Alberta	5,421	2,851	13,031	233.8	123.0	573.4
British Columbia	9,203	4,865	24,763	329.8	174.4	883.5
Yukon	39	19	..	164.6	80.2	..
Northwest Territories	64	44	..	133.5	93.2	..
Canada	82,454	41,964	171,580	335.2	170.3	704.0

<sup>1</sup> Excludes skin cancers other than melanoma.<sup>2</sup> Information not available for Yukon and Northwest Territories.<sup>3</sup> Data listed under 1982 are for 1981-82.

## 3.11 Cancer incidence, mortality and hospital separations, by diagnosis, 1982

Cancer site <sup>1</sup>		New primary sites <sup>2</sup>	Rate per 100,000 population <sup>2</sup>	Deaths from cancer <sup>2</sup>	Rate per 100,000 population <sup>2</sup>	Hospital separations with cancer <sup>2,3</sup>	Rate per 100,000 population <sup>2,3</sup>
140-208	Population ('000)		24,563.3		24,563.3		
140-149	All cancers	82,347	335.2	41,901	170.6	171,580	704
151	Lip, oral cavity and pharynx	2,675	10.9	819	3.3	4,161	17
153	Stomach	2,849	11.6	2,210	9.0	5,258	22
154	Colon	2,900	32.2	3,831	15.6	11,260	46
157	Rectum	4,901	16.3	1,330	5.4	7,342	30
162	Pancreas	2,447	10.0	2,337	9.5	3,757	15
172	Lung	12,428	50.6	10,121	41.2	23,490	96
173	Malignant melanoma of the skin	1,672	6.8	400	1.6	1,937	8
174	Other of skin	..	..	114	0.5	2,615	11
180	Breast <sup>4</sup>	10,300	83.1	3,646	29.4	17,278	141
182	Cervix uteri <sup>4</sup>	1,581	12.8	471	3.8	3,740	30
183	Body of uterus <sup>4</sup>	2,485	20.1	334	2.7	4,196	34
185	Ovary <sup>4</sup>	1,778	14.3	1,088	8.8	6,286	51
188	Prostate <sup>5</sup>	6,867	55.9	2,174	17.9	12,594	104
189	Bladder	3,754	15.3	1,033	4.2	11,347	47
191	Kidney	1,877	7.6	857	3.5	3,023	12
200-203	Brain	1,508	6.1	1,136	4.6	3,587	15
204-208	Lymphatic tissues	4,740	19.3	2,158	8.8	11,578	48
	Leukemia	2,700	11.0	1,616	6.6	6,352	26
	All other sites	10,785	43.9	6,226	25.4	31,779	130

<sup>1</sup> International Classification of Diseases, 9th Revision.<sup>2</sup> Excludes Yukon and Northwest Territories.<sup>3</sup> Data listed under 1982 are for 1981-82.<sup>4</sup> Females only.<sup>5</sup> Males only.

### 3.12 Separated cases and operations in general and allied special hospitals, by age group, 1979-80 to 1982-83<sup>1,2</sup>

Item		Under 15	15-24	25-44	45-64	65+	Total
1979-80							
All separated cases							
Cases	No.	538,306	566,486	942,617	749,750	756,462	3,553,621
Days in hospital	"	2,992,953	3,327,228	6,607,748	9,145,504	18,671,496	40,744,929
Av. days per case	"	5.6	5.9	7.0	12.2	24.7	11.5
Separated cases undergoing surgery							
Cases (primary operations)	No.	185,167	349,745	605,491	346,915	242,409	1,729,727
Days in hospital	"	865,628	1,913,527	3,752,611	3,658,594	4,289,418	14,479,778
Av. days per case	"	4.7	5.5	6.2	10.5	17.7	8.4
Rate per 100,000 population							
All separated cases		9,683	12,182	13,845	16,425	33,878	14,921
All operated cases		3,331	7,521	8,893	7,600	10,856	7,263
Days of all separated cases		53,837	71,549	97,050	200,353	836,199	171,084
Days of all operated cases		15,571	41,148	55,116	80,150	192,101	60,799
Population ('000)		5,559.3	4,650.3	6,808.6	4,564.7	2,232.9	23,815.8
1980-81							
All separated cases							
Cases	No.	511,897	560,164	950,600	756,530	790,825	3,570,016
Days in hospital	"	2,824,184	3,325,418	6,759,452	9,392,269	20,377,902	42,679,225
Av. days per case	"	5.5	5.9	7.1	12.4	25.8	12.0
Separated cases undergoing surgery							
Cases (primary operations)	No.	172,130	349,705	620,300	356,571	258,422	1,757,128
Days in hospital	"	822,247	1,903,220	3,796,476	3,701,772	4,588,861	14,814,576
Av. days per case	"	4.8	5.4	6.1	10.4	17.8	8.4
Rate per 100,000 population							
All separated cases		9,318	12,019	13,531	16,397	34,224	14,811
All operated cases		3,133	7,503	8,829	7,729	11,184	7,290
Days of all separated cases		51,408	71,352	96,214	203,573	881,893	177,062
Days of all operated cases		14,967	40,879	54,039	80,234	198,592	61,461
Population ('000)		5,493.7	4,660.6	7,025.4	4,613.7	2,310.7	24,104.1
1981-82							
All separated cases							
Cases	No.	493,567	547,828	957,734	748,181	816,040	3,563,350
Days in hospital	"	2,684,216	3,242,239	6,768,731	9,512,410	21,601,082	43,808,678
Av. days per case	"	5.4	5.9	7.1	12.7	26.5	12.3
Separated cases undergoing surgery							
Cases (primary operations)	No.	163,545	344,569	630,888	363,411	281,003	1,783,416
Days in hospital	"	797,730	1,865,626	3,896,654	3,838,407	5,172,031	15,570,448
Av. days per case	"	4.9	5.4	6.2	10.6	18.4	8.7
Rate per 100,000 population							
All separated cases		9,045	11,834	13,231	16,030	34,277	14,621
All operated cases		2,997	7,444	8,716	7,786	11,803	7,317
Days of all separated cases		49,192	70,042	93,511	203,810	907,342	179,750
Days of all operated cases		14,620	40,303	53,833	82,240	217,248	63,887
Population ('000)		5,456.6	4,629.0	7,238.4	4,667.3	2,380.7	24,372.0
1982-83							
All separated cases							
Cases	No.	489,970	530,409	964,595	752,921	862,093	3,599,988
Days in hospital	"	2,574,270	3,046,327	6,791,017	9,057,828	21,180,568	42,650,010
Av. days per case	"	5.3	5.7	7.0	12.0	24.6	11.8
Separated cases undergoing surgery							
Cases (primary operations)	No.	157,821	333,223	635,469	366,237	299,698	1,792,448
Days in hospital	"	772,554	1,765,518	3,904,223	3,839,461	5,411,525	15,693,281
Av. days per case	"	4.9	5.3	6.1	10.5	18.1	8.8
Rate per 100,000 population							
All separated cases		8,994	11,600	12,922	15,949	35,241	14,603
All operated cases		2,897	7,287	8,513	7,758	12,251	7,271
Days of all separated cases		47,253	66,621	90,974	191,875	865,821	173,007
Days of all operated cases		14,181	38,611	52,302	81,332	221,213	63,659
Population ('000)		5,447.8	4,572.6	7,464.8	4,720.7	2,446.3	24,652.2

<sup>1</sup> Fiscal years ending Mar. 31.<sup>2</sup> Excludes newborn and data for Yukon and Northwest Territories.

## 3.13 Number and approved bed complement of operating hospitals, 1985-86

Province or territory	Type of hospital					Total, all hospitals	Total, beds
	General	Beds	Allied special	Beds	Mental	Beds	
Newfoundland	31	2,786	10	307	1	449	3,542
Prince Edward Island	7	690	1	63	—	—	753
Nova Scotia	44	4,859	3	501	2	456	5,816
New Brunswick	32	4,293	1	20	2	842	5,155
Quebec	119	31,014	74	21,108	—	—	52,122
Ontario	187	42,078	34	7,719	5	446	50,243
Manitoba	78	5,982	7	491	1	25	6,498
Saskatchewan	132	6,815	1	269	2	263	7,347
Alberta	118	12,942	32	4,040	3	1,117	18,099
British Columbia	93	16,799	20	2,727	4	1,439	20,965
Yukon	—	—	—	—	—	—	—
Northwest Territories	4	181	—	—	—	—	181
Canada	845	128,439	183	37,245	20	5,037	170,721

3.14 General and allied special hospital separations, days per 100,000 population, and average days of stay, by diagnostic category, 1979-80 to 1982-83<sup>1</sup>

Diagnostic category <sup>2</sup>	Separations	Separations per 100,000 population	Days per 100,000 population	Average days of stay
1979-80 <sup>3</sup>				
Infective and parasitic diseases	51,229	215	2,117	9.8
Neoplasms	217,302	912	14,652	16.1
Endocrine, nutritional and metabolic diseases	67,909	285	4,498	15.8
Diseases of the blood and blood-forming organs	23,888	100	1,104	11.0
Mental disorders	157,820	663	14,599	22.0
Diseases of the nervous system and sense organs	153,427	644	10,823	16.8
Diseases of the circulatory system	382,948	1,608	37,703	23.4
Diseases of the respiratory system	383,639	1,611	12,230	7.6
Diseases of the digestive system	425,836	1,788	15,001	8.4
Diseases of the genito-urinary system	296,786	1,246	8,991	7.2
Complications of pregnancy, childbirth and the puerperium	510,593	2,144	10,522	4.9
Diseases of the skin and subcutaneous tissue	53,713	226	2,126	9.4
Diseases of the musculoskeletal system and connective tissue	175,994	739	9,470	12.8
Congenital anomalies	39,110	164	1,780	10.8
Symptoms and ill-defined conditions	171,307	719	6,128	8.5
Accidents, poisoning and violence (nature of injury)	330,156	1,386	14,205	10.2
Supplementary classifications	105,023	441	4,720	10.7
All causes	3,546,710	14,892	170,670	11.5
1980-81 <sup>3</sup>				
Infective and parasitic diseases	47,788	198	2,089	10.5
Neoplasms	219,148	909	14,768	16.2
Endocrine, nutritional and metabolic diseases	66,333	275	4,641	16.9
Diseases of the blood and blood-forming organs	23,545	98	1,086	11.1
Mental disorders	160,086	664	16,416	24.7
Diseases of the nervous system and sense organs	157,626	654	11,956	18.3
Diseases of the circulatory system	391,744	1,625	39,766	24.5
Diseases of the respiratory system	372,004	1,543	12,199	7.9
Diseases of the digestive system	426,028	1,767	14,781	8.4
Diseases of the genito-urinary system	299,245	1,241	8,880	7.2
Complications of pregnancy, childbirth and the puerperium	512,465	2,126	10,285	4.8
Diseases of the skin and subcutaneous tissue	52,174	216	2,064	9.5
Diseases of the musculoskeletal system and connective tissue	181,565	753	9,417	12.5
Congenital anomalies	38,144	158	1,619	10.2
Symptoms and ill-defined conditions	175,868	730	6,847	9.4
Accidents, poisoning and violence (nature of injury)	319,160	1,324	14,070	10.6
Supplementary classifications	117,594	488	5,592	11.5
All causes	3,560,517	14,771	176,475	11.9



### 3.14 General and allied special hospital separations, days per 100,000 population, and average days of stay, by diagnostic category, 1979-80 to 1982-83<sup>1</sup> (concluded)

Diagnostic category <sup>2</sup>	Separations	Separations per 100,000 population	Days per 100,000 population	Average days of stay
1981-82 <sup>3</sup>				
Infective and parasitic diseases	46,667	191	1,871	9.8
Neoplasms	223,554	917	14,740	16.1
Endocrine, nutritional and metabolic diseases	66,024	271	4,694	17.3
Diseases of the blood and blood-forming organs	23,487	96	1,070	11.1
Mental disorders	156,171	641	18,294	28.6
Diseases of the nervous system and sense organs	399,556	1,639	12,580	19.3
Diseases of the circulatory system	355,270	1,458	41,035	25.0
Diseases of the respiratory system	426,541	1,750	11,484	7.9
Diseases of the digestive system	296,308	1,216	14,486	8.3
Complications of pregnancy, childbirth and the puerperium	514,053	2,109	8,557	7.0
Diseases of the skin and subcutaneous tissue	51,139	210	10,088	4.8
Diseases of the musculoskeletal system and connective tissue	184,579	757	9,614	9.6
Congenital anomalies	36,801	151	1,615	12.7
Symptoms and ill-defined conditions	178,096	731	7,268	10.7
Accidents, poisoning and violence (nature of injury)	317,681	1,303	13,901	9.9
Supplementary classifications	118,612	487	5,875	10.7
All causes	3,553,192	14,579	179,188	12.3
1982-83 <sup>3</sup>				
Infective and parasitic diseases	46,478	189	1,893	10.0
Neoplasms	228,072	925	14,615	15.8
Endocrine, nutritional and metabolic diseases	69,182	281	4,476	16.0
Diseases of the blood and blood-forming organs	23,461	95	1,041	10.9
Mental disorders	155,261	630	16,937	26.9
Diseases of the nervous system and sense organs	164,057	665	11,891	17.9
Diseases of the circulatory system	408,924	1,659	38,672	23.3
Diseases of the respiratory system	378,604	1,536	12,187	7.9
Diseases of the digestive system	422,662	1,715	13,970	8.1
Diseases of the genito-urinary system	297,575	1,207	8,579	7.1
Complications of pregnancy, childbirth and the puerperium	514,769	2,088	9,771	4.7
Diseases of the skin and subcutaneous tissue	50,606	205	1,989	9.7
Diseases of the musculoskeletal system and connective tissue	188,049	763	9,523	12.5
Congenital anomalies	35,970	146	1,460	10.0
Symptoms and ill-defined conditions	183,289	743	6,813	9.2
Accidents, poisoning and violence (nature of injury)	307,190	1,246	13,079	10.5
Supplementary classifications	114,924	466	5,523	11.8
All causes	3,589,073	14,559	172,419	11.8

<sup>1</sup> Excludes newborn and data for Yukon and Northwest Territories.

<sup>2</sup> Major groupings of the International Classification of Diseases, Adapted — 8th Revision. More detailed information is available in Statistics Canada publications *Hospital morbidity* (Catalogue 82-206) and *Hospital morbidity — Canadian diagnostic list* (Catalogue 82-209).

<sup>3</sup> Fiscal year ending March 31.

### 3.15 Hospital separations<sup>1</sup> by diagnostic category and sex, 1979-80 to 1982-83<sup>2</sup>

Diagnostic category	Sex	1979-80	1980-81	1981-82	1982-83
Infective and parasitic diseases	M	26,072	24,096	23,701	23,249
	F	25,157	23,692	22,966	23,229
Neoplasms	M	95,538	97,799	100,580	103,080
	F	121,764	121,349	122,974	124,992
Endocrine, nutritional and metabolic diseases	M	27,249	26,828	26,383	28,026
	F	40,660	39,505	39,641	41,156
Diseases of the blood and blood-forming organs	M	10,856	10,700	10,544	10,355
	F	13,032	12,845	12,943	13,106
Mental disorders	M	72,349	74,296	71,557	70,304
	F	85,471	85,790	84,614	84,957
Diseases of the nervous system and sense organs	M	74,003	75,671	76,004	77,872
	F	79,424	81,955	82,649	86,185
Diseases of the circulatory system	M	211,681	217,312	222,143	227,663
	F	171,267	174,432	177,413	181,261
Diseases of the respiratory system	M	211,773	205,645	197,625	208,845
	F	171,866	166,359	157,645	169,759
Diseases of the digestive system	M	220,271	220,462	220,581	217,716
	F	205,565	205,566	205,960	204,946
Diseases of the genito-urinary system	M	95,149	96,466	97,050	99,278
	F	201,637	202,779	199,258	198,297

3.15 Hospital separations<sup>1</sup> by diagnostic category and sex, 1979-80 to 1982-83<sup>2</sup> (concluded)

Diagnostic category	Sex	1979-80	1980-81	1981-82	1982-83
Complications of pregnancy, childbirth and the puerperium	F	510,593	512,465	514,053	514,769
Diseases of the skin and subcutaneous tissue	M	26,233	25,523	25,047	24,756
	F	27,510	26,651	26,092	25,850
Diseases of the musculoskeletal system and connective tissue	M	84,788	88,535	90,034	92,312
Congenital anomalies	F	91,206	93,030	94,545	95,737
	M	21,538	21,100	20,504	20,144
	F	17,572	17,044	16,297	15,826
Symptoms and ill-defined conditions	M	80,136	83,135	84,390	86,102
	F	91,171	92,733	93,706	97,187
Accidents, poisonings and violence (nature of injury)	M	197,421	190,075	187,727	180,885
	F	132,735	129,085	129,954	126,305
Supplementary classifications	M	29,508	36,116	36,961	37,159
	F	75,515	81,478	81,651	77,765
All causes	M	1,484,565	1,493,759	1,490,831	1,507,746
	F	2,062,145	2,066,758	2,062,361	2,081,327

<sup>1</sup> Excludes newborn and data for Yukon and Northwest Territories.  
<sup>2</sup> Fiscal years ending March 31.

3.16 Primary operations<sup>1</sup> in general and allied special hospitals, by age group and by sex, 1980-81 to 1982-83<sup>2</sup>

Operation	Sex	Under 15	15-24	25-44	45-64	65 +	Total
1980-81							
All operations	M	100,551	87,623	139,358	172,010	132,704	632,246
	F	71,579	262,082	480,942	184,561	125,718	1,124,882
	T	172,130	349,705	620,300	356,571	258,422	1,757,128
1981-82							
All operations	M	96,163	86,431	143,292	179,200	144,924	650,010
	F	67,382	258,138	487,596	184,211	136,079	1,133,406
	T	163,545	344,569	630,888	363,411	281,003	1,783,416
1982-83							
Nervous system	M	4,133	2,806	9,245	9,011	4,185	29,380
	F	3,051	1,863	6,584	7,619	4,150	23,267
Endocrine system	M	201	192	510	567	242	1,712
	F	198	467	1,702	1,824	726	4,917
Eyes	M	3,735	1,768	3,514	8,227	14,302	31,546
	F	3,282	1,190	2,404	8,046	22,159	37,081
Ears	M	6,555	1,616	2,965	2,153	593	13,882
	F	4,747	1,645	3,223	2,340	591	12,546
Nose, throat and pharynx	M	28,372	14,502	16,017	8,281	3,401	70,573
	F	26,233	18,261	12,581	5,841	3,040	65,956
Respiratory system	M	623	1,288	2,569	7,327	6,965	18,772
	F	413	590	1,796	4,090	3,566	10,455
Cardiovascular system	M	2,306	1,736	9,209	34,509	20,249	68,009
	F	2,049	1,367	8,339	18,414	13,966	44,135
Hematic and lymphatic systems	M	882	937	1,552	2,943	3,559	9,873
	F	650	647	1,577	2,751	3,782	9,407
Digestive system and abdominal region	M	15,950	14,224	35,200	50,347	37,440	153,161
	F	7,796	20,748	46,139	39,042	33,040	146,765
Urinary tract	M	2,470	2,418	7,681	12,602	15,716	40,887
	F	2,413	2,350	7,605	9,494	8,440	30,302
Male genital organs	M	10,358	3,350	6,909	14,105	28,481	63,203
Female genital organs	F	637	30,155	131,232	40,512	11,466	214,002
Obstetrical procedures	F	471	146,550	226,465	269	—	373,755
Musculoskeletal system	M	12,915	29,480	40,740	26,536	14,533	124,204
	F	9,772	15,010	21,361	25,700	29,084	100,927
Breast	M	136	634	400	440	381	1,991
	F	79	3,323	10,957	10,988	5,419	30,766
Skin and subcutaneous tissue	M	4,129	7,506	8,996	5,995	4,431	31,057
	F	3,145	6,482	7,682	5,852	5,337	28,498
Procedures not elsewhere classified	M	73	56	142	226	187	684
	F	47	62	173	186	267	735
All operations	M	92,838	82,513	145,649	183,269	154,665	658,934
	F	64,983	250,710	489,820	182,968	145,033	1,133,514
	T	157,821	333,223	635,469	366,237	299,698	1,792,448

<sup>1</sup> Excludes newborn and data for Yukon and Northwest Territories.  
<sup>2</sup> Fiscal years ending March 31.

**3.17 Total therapeutic abortions<sup>1</sup> and abortion rate per 100 live births, 1981-85**

Province or territory	Number of therapeutic abortions					Rate per 100 live births <sup>2</sup>				
	1981	1982	1983	1984	1985	1981	1982	1983	1984	1985
Newfoundland	470	457	483	382	415	4.6	4.3	5.4	4.5	4.9
Prince Edward Island	27	26	14	12	11	1.4	1.3	0.7	0.6	0.5
Nova Scotia	1,689	1,691	1,678	1,703	1,698	14.0	14.2	13.5	13.8	13.6
New Brunswick	444	243	277	278	310	2.3	2.3	2.6	2.7	3.1
Quebec	9,042	9,671	9,406	9,720	9,527	9.5	10.3	10.7	11.1	11.0
Ontario	30,463	31,290	28,404	28,276	27,335	24.9	25.2	22.4	21.5	20.7
Manitoba	1,610	1,728	1,689	2,226	2,285	10.0	10.1	10.2	13.4	13.4
Saskatchewan	1,627	1,622	1,398	1,214	1,173	9.5	9.6	7.8	6.7	6.5
Alberta	6,757	6,617	6,484	6,668	6,547	15.8	16.0	14.2	15.1	14.9
British Columbia	12,619	12,566	11,597	11,449	11,264	30.4	29.6	27.0	26.1	26.1
Yukon	123	124	113	87	95	22.9	22.1	20.9	16.8	20.5
Northwest Territories	179	218	205	226	254	13.7	19.8	13.7	15.7	17.7
Residence not reported	3	1	2	6	14	--	--	--	--	--
Canada	65,053	66,254	61,750	62,247	60,928	17.5	17.8	16.5	16.5	16.2

<sup>1</sup> In addition 74 abortions were performed on non-residents in 1981, 65 in 1982, 50 in 1983, 44 in 1984 and 28 in 1985.

<sup>2</sup> Rates are based on estimated live births.

**3.18 Number of patient-days in operating hospitals<sup>1</sup>, by type of hospital, 1985-86 and totals, 1976 to 1984-85**

Province or territory <sup>2</sup>	General	Special <sup>3</sup>	Rehabilitation	Extended care <sup>4</sup>	Other <sup>5</sup>	Total
<b>1985-86</b>						
Newfoundland	744,399	47,738	4,398	154,485	1,413	952,433
Prince Edward Island	197,392	—	—	22,230	—	219,622
Nova Scotia	1,331,168	217,414	18,015	18,157	—	1,584,754
New Brunswick	1,278,698	—	5,987	253,797	—	1,538,482
Quebec	9,566,355	914,759	382,719	5,870,195	—	16,734,028
Ontario	12,887,571	469,671	200,164	1,982,551	—	15,539,957
Manitoba	1,653,906	9,509	—	149,996	219	1,813,630
Saskatchewan	1,854,754	11,799	—	159,583	—	2,026,136
Alberta	3,450,592	75,479	77,859	1,555,259	—	5,159,189
British Columbia	5,166,968	140,300	87,966	1,151,027	—	6,546,261
Northwest Territories	40,513	—	—	—	—	40,513
Canada	38,172,316	1,886,669	777,108	11,317,280	1,632	52,155,005
<b>Canada</b>						
1984-85	37,573,133	1,882,562	737,380	11,629,379	1,765	51,824,219
1983-84	37,315,486	1,927,868	795,988	11,357,851	2,823	51,400,016
1982-83	36,526,238	1,753,619	764,712	10,674,151	2,470	49,721,190
1981-82	36,314,352	1,724,520	745,110	10,738,277	2,795	49,525,054
1980-81	35,662,717	1,468,187	673,179	10,176,405	3,382	47,983,870
1979-80	34,946,846	1,460,259	675,736	10,279,391	2,940	47,365,172
1978-79	34,930,832	1,264,046	710,135	10,177,698	3,300	47,086,011
1977-78	34,392,658	1,115,850	716,449	9,949,756	4,657	46,179,370
1976	33,476,894	1,026,419	738,172	9,746,253	5,536	44,993,274

<sup>1</sup> Excludes data for federal and private hospitals.

<sup>2</sup> All six hospitals in Yukon are federal.

<sup>3</sup> Includes pediatric, psychiatric short-term and other special hospitals.

<sup>4</sup> Includes chronic care and psychiatric long-term care hospitals.

<sup>5</sup> Includes nursing stations and outpost hospitals.

**3.19 Number of operating public hospitals<sup>1</sup>, by type of hospital, 1985-86 and totals, 1976 to 1984-85**

Province or territory <sup>2</sup>	General	Special <sup>3</sup>	Rehabilitation	Extended care <sup>4</sup>	Other <sup>5</sup>	Total
<b>1985-86</b>						
Newfoundland	31	1	1	1	8	42
Prince Edward Island	7	—	—	1	—	8
Nova Scotia	44	3	1	1	—	49
New Brunswick	32	—	1	2	—	35
Quebec	119	14	8	52	—	193
Ontario	187	9	6	23	1	226
Manitoba	78	2	—	2	4	86
Saskatchewan	132	1	—	2	—	135
Alberta	118	4	1	29	1	153
British Columbia	93	4	3	17	—	117
Northwest Territories	4	—	—	—	—	4
<b>Canada</b>	<b>845</b>	<b>38</b>	<b>21</b>	<b>130</b>	<b>14</b>	<b>1,048</b>
<b>Canada</b>						
1984-85	846	37	20	131	14	1,048
1983-84	846	38	21	128	16	1,049
1982-83	856	37	21	128	21	1,063
1981-82	857	37	22	126	16	1,058
1980-81	855	28	21	130	15	1,049
1979-80	857	28	21	130	15	1,051
1978-79	861	25	21	131	15	1,053
1977-78	861	22	22	129	16	1,050
1976	861	22	23	122	15	1,043

<sup>1</sup> Excludes data for federal and private hospitals.<sup>2</sup> All six hospitals in Yukon are federal.<sup>3</sup> Includes pediatric, psychiatric short-term and other special hospitals.<sup>4</sup> Includes chronic care and psychiatric long-term care hospitals.<sup>5</sup> Includes nursing stations and outpost hospitals.**3.20 Mental disorders, separations, rates per 100,000 population and days of care, by age and sex, psychiatric and general hospitals, 1979-80 to 1982-83**

Year and age	Sex	Psychiatric hospitals			General hospitals		
		Separations	Rates per 100,000	Days of care	Separations	Rates per 100,000	Days of care
1979-80							
0 - 19 years	M	2,047	50.5	251,914	6,697	165.2	132,362
	F	1,144	29.6	127,361	7,317	189.1	121,453
20 - 34 "	M	10,176	322.9	1,322,398	21,425	679.8	346,595
	F	5,308	169.0	766,605	24,591	783.1	401,285
35 - 44 "	M	3,995	282.4	1,091,699	12,312	870.3	161,419
	F	2,961	213.3	533,675	14,672	1,057.1	229,385
45 - 64 "	M	4,881	218.0	2,253,701	21,780	972.9	393,677
	F	4,566	196.3	1,192,163	24,799	1,066.1	473,946
65 - 74 "	M	1,078	168.4	1,091,095	6,194	967.7	195,933
	F	1,139	149.6	818,279	8,076	1,060.8	258,595
75 years and over	M	619	191.8	577,615	3,941	1,220.9	281,627
	F	715	140.6	803,089	6,016	1,182.6	480,696
All ages	M	22,796	192.8	6,588,422	72,349	611.9	1,511,613
	F	15,833	132.0	4,241,172	85,471	712.6	1,965,360
1980-81							
0 - 19 years	M	1,712	42.7	164,802	6,613	164.8	138,916
	F	961	25.1	103,061	6,819	178.4	121,749
20 - 34 "	M	9,413	291.5	767,298	22,432	694.7	390,608
	F	4,561	141.5	392,098	23,952	743.3	438,724
35 - 44 "	M	3,706	253.9	398,744	12,534	858.8	182,862
	F	2,567	179.0	331,875	14,689	1,024.4	259,689
45 - 64 "	M	4,536	200.4	1,062,143	21,901	967.5	429,676
	F	4,131	175.8	825,331	24,846	1,057.3	539,695
65 - 74 "	M	930	140.9	561,070	6,285	952.3	210,746
	F	1,051	133.2	509,759	8,445	1,070.6	279,298
75 years and over	M	643	193.3	577,497	4,531	1,362.3	332,385
	F	728	137.5	687,995	7,039	1,329.9	632,589
All ages	M	20,940	175.1	3,531,554	74,296	621.4	1,685,193
	F	13,999	115.2	2,850,119	85,790	706.2	2,271,744



### 3.20 Mental disorders, separations, rates per 100,000 population and days of care, by age and sex, psychiatric and general hospitals, 1979-80 to 1982-83 (concluded)

Year and age	Sex	Psychiatric hospitals			General hospitals		
		Separations	Rates per 100,000	Days of care	Separations	Rates per 100,000	Days of care
1981-82							
0 - 19 years	M	1,542	38.9	142,069	6,500	163.9	158,238
	F	847	22.4	57,140	6,737	178.4	117,932
20 - 34 "	M	9,236	281.2	814,601	21,589	657.2	422,654
	F	4,718	143.6	433,762	23,558	717.3	422,977
35 - 44 "	M	3,852	253.6	472,585	12,600	829.4	212,187
	F	2,628	175.8	325,495	14,429	965.4	255,848
45 - 64 "	M	4,211	183.8	1,034,001	20,217	882.3	551,606
	F	4,087	172.0	892,707	23,777	1,000.7	600,347
65 - 74 "	M	980	145.1	551,920	6,241	924.0	276,532
	F	1,147	141.3	564,528	8,755	1,078.5	375,788
75 years and over	M	646	188.7	593,106	4,410	1,288.0	355,694
	F	861	156.2	984,813	7,358	1,335.1	708,901
All ages	M	20,467	169.4	3,608,282	71,557	592.4	1,976,911
	F	14,288	116.2	3,258,445	84,614	688.3	2,481,793
1982-83							
0 - 19 years	M	1,462	37.3	120,060	5,954	151.8	130,728
	F	777	20.8	56,491	6,401	171.6	111,176
20 - 34 "	M	9,128	274.0	814,842	22,028	661.3	425,922
	F	4,521	135.8	473,146	23,226	697.5	423,932
35 - 44 "	M	3,846	240.9	409,576	12,292	769.9	219,232
	F	2,688	170.8	236,141	14,834	942.4	270,882
45 - 64 "	M	4,183	180.4	820,330	19,138	825.6	406,251
	F	3,961	164.9	671,720	23,536	979.6	522,591
65 - 74 "	M	971	141.1	751,809	6,237	906.1	254,229
	F	1,144	137.6	632,668	9,015	1,084.2	316,011
75 years and over	M	680	192.6	682,862	4,655	1,318.3	369,257
	F	895	156.1	938,253	7,945	1,385.6	725,221
All ages	M	20,270	166.0	3,599,479	70,304	575.8	1,805,639
	F	13,986	112.4	3,008,419	84,957	682.8	2,369,813

### 3.21 Mental disorders, separations, days of care and average (median) length of stay, by selected diagnostic class and sex, psychiatric and general hospitals, 1979-80 to 1982-83

Year and diagnostic class	Sex	Psychiatric hospitals			General hospitals		
		Separations	Days of care	Median stay in days	Separations	Days of care	Median stay in days
1979-80							
Organic psychotic conditions	M	1,279	565,282	51	6,981	324,397	9
	F	851	494,252	93	4,766	425,222	16
Schizophrenia	M	6,950	2,354,958	38	8,268	267,641	16
	F	4,104	1,379,706	42	8,320	243,933	18
Affective psychoses	M	2,003	229,795	33	5,891	141,180	16
	F	2,486	341,737	38	12,396	290,582	17
Other psychoses	M	1,189	204,899	29	3,519	85,380	15
	F	1,074	280,509	32	4,916	134,007	15
Neurotic disorders	M	1,513	107,176	22	12,156	165,084	7
	F	2,354	131,955	24	28,399	387,828	8
Personality disorders	M	2,509	240,903	20	3,098	51,060	8
	F	1,440	112,723	20	3,697	67,798	9
Alcohol dependence	M	3,672	105,718	17	20,328	215,945	6
	F	794	25,709	19	5,312	63,070	6
Drug problems	M	361	12,438	13	2,897	19,164	8
	F	193	4,408	13	2,186	18,045	4
Adjustment reaction	M	535	29,457	14	1,358	18,245	7
	F	526	18,660	12	2,321	28,544	6
Depressive disorders	M	122	4,089	14	2,439	31,019	8
	F	157	9,699	23	6,092	78,280	8
Mental retardation	M	1,037	2,440,057	202	565	47,274	11
	F	674	1,216,510	217	505	35,876	11
Other non-psychotic	M	1,626	293,650	27	4,849	145,224	8
	F	1,180	225,304	45	6,561	192,175	7
All diagnoses	M	22,796	6,588,422	28	72,349	1,511,613	8
	F	15,833	4,241,172	32	85,471	1,965,360	10

3.21 Mental disorders, separations, days of care and average (median) length of stay, by selected diagnostic class and sex, psychiatric and general hospitals, 1979-80 to 1982-83 (continued)

Year and diagnostic class	Sex	Psychiatric hospitals			General hospitals		
		Separations	Days of care	Median stay in days	Separations	Days of care	Median stay in days
1980-81							
Organic psychotic conditions	M	1,236	393,396	42	7,817	376,676	8
	F	777	451,916	78	5,194	541,116	16
Schizophrenia	M	6,460	1,686,582	37	9,477	312,150	17
	F	3,664	1,047,860	44	9,097	309,237	19
Affective psychoses	M	1,916	178,877	32	6,357	165,364	17
	F	2,312	269,895	38	13,085	338,728	18
Other psychoses	M	977	135,413	29	3,638	96,290	13
	F	897	139,729	30	4,790	126,402	15
Neurotic disorders	M	1,270	68,524	20	10,992	146,444	7
	F	1,782	87,628	24	24,571	356,225	8
Personality disorders	M	2,286	202,395	18	3,067	49,222	8
	F	1,312	121,424	22	3,717	74,260	9
Alcohol dependence	M	3,434	99,085	19	18,283	212,622	6
	F	738	21,512	22	4,850	59,159	7
Drug problems	M	403	8,654	15	3,668	24,916	3
	F	250	6,617	15	2,326	23,096	4
Adjustment reaction	M	641	40,690	14	2,242	40,023	9
	F	573	42,581	15	3,948	63,830	9
Depressive disorders	M	183	14,549	20	3,306	49,547	8
	F	219	12,088	25	7,505	107,312	9
Mental retardation	M	609	434,082	48	528	39,717	12
	F	456	493,868	78	489	47,685	11
Other non-psychotic	M	1,525	269,307	21	4,921	172,222	8
	F	1,019	155,001	19	6,218	224,694	8
All diagnoses	M	20,940	3,531,554	26	74,296	1,685,193	8
	F	13,999	2,850,119	31	85,790	2,271,744	11
1981-82							
Organic psychotic conditions	M	1,273	483,146	47	7,951	424,177	8
	F	883	552,608	78	5,277	633,115	17
Schizophrenia	M	6,302	1,551,539	41	9,244	445,877	17
	F	3,587	1,083,766	47	8,813	392,076	19
Affective psychoses	M	2,003	185,966	34	6,439	163,982	17
	F	2,532	324,286	38	13,114	342,540	18
Other psychoses	M	999	106,525	26	3,325	109,518	12
	F	901	180,876	31	4,634	136,679	15
Neurotic disorders	M	1,056	66,706	21	10,254	130,963	7
	F	1,571	108,262	26	23,170	319,300	8
Personality disorders	M	2,302	160,995	19	2,950	45,868	7
	F	1,297	88,041	18	3,553	76,468	10
Alcohol dependence	M	3,110	101,937	20	16,270	180,125	6
	F	678	23,192	23	4,533	51,395	6
Drug problems	M	475	13,066	12	3,643	23,806	2
	F	249	5,775	18	2,362	20,098	4
Adjustment reaction	M	677	25,969	14	2,339	46,095	9
	F	687	28,630	16	4,238	71,378	9
Depressive disorders	M	255	23,365	28	3,636	54,113	8
	F	318	24,116	33	8,153	125,914	9
Mental retardation	M	604	639,764	82	584	159,447	11
	F	512	428,532	64	508	73,063	12
Other non-psychotic	M	1,411	249,284	21	4,922	192,940	8
	F	1,073	410,361	22	6,259	239,767	8
All diagnoses	M	20,467	3,608,282	28	71,557	1,976,911	8
	F	14,288	3,258,445	32	84,614	2,481,793	11
1982-83							
Organic psychotic conditions	M	1,176	545,028	58	7,657	431,272	8
	F	783	593,141	77	5,403	631,369	16
Schizophrenia	M	6,125	1,670,299	41	9,302	334,448	16
	F	3,477	1,092,428	44	8,712	297,489	19
Affective psychoses	M	2,067	168,500	33	6,949	178,158	18
	F	2,711	293,212	38	14,069	368,182	18
Other psychoses	M	938	132,912	28	3,606	92,497	12
	F	892	107,783	34	4,952	142,496	15
Neurotic disorders	M	1,084	58,541	22	10,128	126,858	7
	F	1,495	98,173	25	22,268	304,146	8
Personality disorders	M	2,424	202,502	19	2,981	47,542	7
	F	1,305	98,470	20	3,657	71,422	10
Alcohol dependence	M	2,949	89,965	23	14,820	167,084	6
	F	612	19,180	25	4,205	48,137	7
Drug problems	M	560	15,159	14	3,421	23,071	3
	F	254	6,034	18	2,365	20,966	4
Adjustment reaction	M	716	55,604	15	2,352	42,857	8
	F	707	41,713	17	4,258	71,448	9

### 3.21 Mental disorders, separations, days of care and average (median) length of stay, by selected diagnostic class and sex, psychiatric and general hospitals, 1979-80 to 1982-83 (concluded)

Year and diagnostic class	Sex	Psychiatric hospitals			General hospitals		
		Separations	Days of care	Median stay in days	Separations	Days of care	Median stay in days
Depressive disorders	M	285	17,037	31	3,970	61,192	8
	F	332	33,759	30	8,498	132,772	9
Mental retardation	M	559	437,703	63	463	102,973	14
	F	457	412,018	64	438	52,803	13
Other non-psychotic	M	1,387	206,229	21	4,655	197,687	8
	F	961	212,508	19	6,132	228,583	8
All diagnoses	M	20,270	3,599,479	27	70,304	1,805,639	9
	F	13,986	3,008,419	32	84,957	2,369,813	11

### 3.22 Approved bed complement in operating public hospitals<sup>1</sup>, by type of hospital, 1985-86 and totals, 1976 to 1984-85

Province or territory <sup>2</sup>	General	Special <sup>3</sup>	Rehabilitation	Extended care <sup>4</sup>	Other <sup>5</sup>	Total
1985-86						
Newfoundland	2,786	230	42	449	35	3,542
Prince Edward Island	690	—	—	63	—	753
Nova Scotia	4,859	843	52	62	—	5,816
New Brunswick	4,293	—	20	842	—	5,155
Quebec	31,014	2,972	1,171	16,965	—	52,122
Ontario	42,078	1,787	675	5,701	2	50,243
Manitoba	5,982	45	—	458	13	6,498
Saskatchewan	6,815	45	—	487	—	7,347
Alberta	12,942	368	309	4,479	1	18,099
British Columbia	16,799	452	313	3,401	—	20,965
Northwest Territories	181	—	—	—	—	181
Canada	128,439	6,742	2,582	32,907	51	170,721
Canada						
1984-85	126,905	6,718	2,522	34,326	52	170,523
1983-84	126,163	6,815	2,747	33,636	61	169,422
1982-83	124,664	6,349	2,627	34,081	96	167,817
1981-82	124,783	6,265	2,677	32,295	76	166,096
1980-81	123,109	5,333	2,409	30,197	74	161,122
1979-80	120,857	5,362	2,346	30,303	85	158,953
1978-79	122,523	4,875	2,419	29,875	96	159,788
1977-78	121,652	4,306	2,650	29,528	104	158,240
1976	119,870	4,129	2,691	28,622	96	155,408

<sup>1</sup> Excludes data for federal and private hospitals.

<sup>2</sup> All six hospitals in Yukon are federal.

<sup>3</sup> Includes pediatric, psychiatric short-term and other special hospitals.

<sup>4</sup> Includes chronic care and psychiatric long-term care hospitals.

<sup>5</sup> Includes nursing stations and outpost hospitals.

### 3.23 Operating expense per patient-day, for reporting public hospitals<sup>1</sup>, by type of hospital, 1985-86 and totals, 1976 to 1984-85 (dollars)

Province or territory <sup>2</sup>	General	Special <sup>3</sup>	Rehabilitation	Extended care <sup>4</sup>	Other <sup>5</sup>	Total
1985-86						
Newfoundland	367.71	510.46	782.04	169.16	2,785.63	347.25
Prince Edward Island	262.84	—	—	118.69	—	248.25
Nova Scotia	364.55	385.92	402.01	408.64	—	368.42
New Brunswick	301.52	—	305.34	140.59	—	275.00
Quebec	325.76	332.57	183.51	118.35	—	249.97
Ontario	347.56	750.91	257.74	156.57	—	334.23
Manitoba	370.42	477.94	—	205.05	—	357.31
Saskatchewan	275.24	—	—	160.61	—	266.16
Alberta	369.73	1,239.57	389.49	134.24	—	311.76
British Columbia	259.52	913.63	238.13	122.26	—	249.12
Northwest Territories	682.87	—	—	—	—	682.87
Canada	328.98	528.82	238.84	131.03	2,785.63	291.87
Canada						
1984-85	312.71	500.00	211.16	123.79	3,043.54	275.54
1983-84	298.17	464.78	211.67	116.12	1,739.49	263.06
1982-83	279.27	453.31	202.90	106.18	1,753.39	247.42
1981-82	246.88	383.29	184.82	95.87	945.88	217.97
1980-81	211.96	343.63	162.26	83.13	711.24	188.01
1979-80	183.91	294.37	135.71	71.43	685.95	162.25
1978-79	167.69	284.15	128.39	64.41	492.72	147.92
1977-78	153.95	283.15	117.93	57.03	404.09	135.65
1976	143.16	268.95	105.54	51.95	226.38	125.79

<sup>1</sup> Excludes data for federal and private hospitals.<sup>2</sup> All six hospitals in Yukon are federal.<sup>3</sup> Includes pediatric, psychiatric short-term and other special hospitals.<sup>4</sup> Includes chronic care and psychiatric long-term care hospitals.<sup>5</sup> Includes nursing stations and outpost hospitals.

### 3.24 Total operating expense for reporting public hospitals<sup>1</sup>, by type of expense, 1985-86 and totals, 1976 to 1984-85 (thousand dollars)

Province or territory <sup>2</sup>	Gross salaries and wages	Medical and surgical supplies	Drugs	Employee benefits	Supplies and other expenses	Total
1985-86						
Newfoundland	205,084	13,900	9,019	21,265	66,860	316,129
Prince Edward Island	35,993	2,498	1,677	3,325	11,028	54,521
Nova Scotia	392,491	24,443	17,379	34,158	115,378	583,850
New Brunswick	285,604	18,422	11,646	27,195	80,213	423,080
Quebec	2,838,412	132,482	108,482	277,280	818,538	4,175,193
Ontario	3,487,958	221,630	164,419	346,354	973,578	5,193,939
Manitoba	426,358	24,987	17,994	36,316	142,287	647,941
Saskatchewan	368,509	22,387	15,793	32,513	96,927	536,128
Alberta	1,096,568	63,422	43,097	106,434	298,932	1,608,452
British Columbia	1,107,684	75,098	49,045	154,052	244,909	1,630,788
Northwest Territories	14,614	547	562	4,303	7,639	27,665
Canada	10,259,274	599,814	439,112	1,043,196	2,856,290	15,197,686
Canada						
1984-85	9,627,988	421,227	290,767	963,110	2,943,882	14,246,974
1983-84	9,015,047	486,343	337,488	1,017,645	2,599,110	13,455,633
1982-83	8,337,206	328,984	225,472	869,609	2,488,624	12,249,895
1981-82	7,372,704	283,962	188,272	734,062	2,214,770	10,793,771
1980-81	6,216,889	228,841	156,232	554,022	1,865,321	9,021,305
1979-80	5,332,535	187,339	134,038	428,242	1,602,908	7,685,062
1978-79	4,866,727	216,596	157,294	433,934	1,290,655	6,965,205
1977-78	4,409,819	187,801	139,883	395,770	1,130,401	6,263,673
1976	4,015,874	160,181	123,441	364,066	984,910	5,648,472

<sup>1</sup> Excludes data for federal and private hospitals.<sup>2</sup> All six hospitals in Yukon are federal.



**3.25 Physicians and population per physician, by province, 1975 and 1980-85<sup>1</sup>**

Province or territory	Number of physicians <sup>2</sup>						
	1975	1980	1981	1982	1983	1984	1985
Newfoundland	732	866	892	943	976	981	975
Prince Edward Island	120	152	155	154	150	153	165
Nova Scotia	1,388	1,588	1,599	1,636	1,728	1,720	1,805
New Brunswick	741	786	815	878	929	937	956
Quebec	10,846	12,160	12,638	13,077	13,354	13,775	14,393
Ontario	15,121	16,664	17,028	17,599	18,214	18,607	19,481
Manitoba	1,732	1,878	1,910	2,044	2,104	2,123	2,162
Saskatchewan	1,305	1,442	1,477	1,535	1,568	1,572	1,623
Alberta	2,737	3,406	3,567	3,818	3,930	4,032	4,186
British Columbia	4,328	5,265	5,391	5,636	5,838	5,942	6,152
Yukon	23	28	28	29	30	31	28
Northwest Territories	30	40	42	35	39	38	40
Province unspecified	1	—	—	—	—	—	—
Canada	39,104	44,275	45,542	47,384	48,860	49,916	51,966
Province or territory	Population per physician <sup>2</sup>						
	1975	1980	1981	1982	1983	1984	1985
Newfoundland	758	655	636	608	593	590	596
Prince Edward Island	983	805	791	803	833	803	775
Nova Scotia	595	533	532	525	503	511	489
New Brunswick	909	885	855	802	766	765	753
Quebec	573	527	511	497	489	476	459
Ontario	544	516	509	499	489	485	469
Manitoba	588	545	539	510	501	502	497
Saskatchewan	702	669	660	644	639	647	628
Alberta	663	647	642	612	595	580	567
British Columbia	568	516	515	498	488	485	471
Yukon	948	811	839	783	727	735	811
Northwest Territories	1,410	1,125	1,107	1,377	1,254	1,329	1,273
Canada	585	547	538	523	512	506	491

<sup>1</sup> As of December 31 of each year.<sup>2</sup> Includes interns and residents.**3.26 Active licensed dentists and population per dentist, 1975 and 1980-85<sup>1</sup>**

Province or territory	Number of dentists						
	1975	1980	1981	1982	1983	1984	1985
Newfoundland	88	110	123	129	128	135	137
Prince Edward Island	47	40	40	42	40	44	46
Nova Scotia	245	309	314	322	339	352	373
New Brunswick	136	183	196	198	203	211	214
Quebec	1,976	2,469	2,580	2,651	2,732	2,782	2,855
Ontario	3,539	4,510	4,637	4,809	5,027	5,177	5,327
Manitoba	365	439	443	450	468	486	497
Saskatchewan	278	322	335	341	346	364	366
Alberta	725	1,027	1,057	1,128	1,165	1,202	1,234
British Columbia	1,323	1,658	1,730	1,773	1,786	1,828	1,926
Yukon	8	12	13	14	14	15	19
Northwest Territories	8	16	16	23	23	28	33
Canada	8,738	11,095	11,484	11,880	12,271	12,624	13,027
Province or territory	Population per dentist						
	1975	1980	1981	1982	1983	1984	1985
Newfoundland	6,305	5,156	4,613	4,446	4,514	4,290	4,239
Prince Edward Island	2,511	3,060	3,065	2,943	3,133	2,889	2,780
Nova Scotia	3,373	2,741	2,708	2,665	2,560	2,493	2,367
New Brunswick	4,954	3,802	3,554	3,556	3,505	3,401	3,366
Quebec	3,143	2,597	2,504	2,449	2,389	2,360	2,315
Ontario	2,325	1,907	1,870	1,826	1,769	1,743	1,716
Manitoba	2,790	2,331	2,325	2,317	2,252	2,193	2,164
Saskatchewan	3,297	2,994	2,911	2,897	2,894	2,788	2,786
Alberta	2,503	2,146	2,168	2,073	2,016	1,952	1,923
British Columbia	1,857	1,639	1,605	1,584	1,592	1,573	1,505
Yukon	2,725	1,892	1,808	1,621	1,593	1,540	1,195
Northwest Territories	5,287	2,813	2,906	2,096	2,152	1,807	1,542
Canada	2,619	2,183	2,134	2,086	2,039	2,001	1,958

<sup>1</sup> As of December 31 of each year.

**3.27 Registered optometrists and population per optometrist, 1975 and 1980-85**

Province or territory	Number of registered optometrists						
	1975	1980	1981	1982	1983	1984	1985
Newfoundland	15	27	28	34	35	35	36
Prince Edward Island	6	6	6	8	8	8	6
Nova Scotia	38	45	50	59	55	55	55 <sup>1</sup>
New Brunswick	46	57	61	76	70	77	82 <sup>1</sup>
Quebec	628	743	801	814	847	840	908
Ontario	588	687	701	773	785	813	851
Manitoba	66	73	70	79	73	73	78 <sup>1</sup>
Saskatchewan	82	89	89	94	93	94	96 <sup>1</sup>
Alberta	172	185	198	209	210	220	228 <sup>1</sup>
British Columbia	168	185	212	230	227	238	255 <sup>1</sup>
Yukon	4	2	3	2	2	2	2
Northwest Territories	5	5 <sup>2</sup>	5 <sup>2</sup>	5 <sup>2</sup>	3 <sup>2</sup>	3 <sup>2</sup>	2 <sup>2</sup>
Canada	1,818	2,104 <sup>2</sup>	2,224	2,383	2,408	2,458	2,594
Province or territory	Population per registered optometrist						
	1975	1980	1981	1982	1983	1984	1985
Newfoundland	36,987	21,007	20,264	16,868	16,509	16,549	16,131
Prince Edward Island	19,667	20,400	20,433	15,450	15,663	15,887	21,317
Nova Scotia	21,750	18,820	17,006	14,546	15,778	15,953	16,055
New Brunswick	14,648	12,205	11,420	9,264	10,166	9,321	8,784
Quebec	9,891	8,631	8,066	7,977	7,705	7,815	7,279
Ontario	13,995	12,518	12,370	11,362	11,331	11,097	10,740
Manitoba	15,427	14,019	14,716	13,200	14,430	14,601	13,787
Saskatchewan	11,179	10,833	10,957	10,509	10,767	10,795	10,621
Alberta	10,549	11,911	11,372	11,186	11,181	10,667	10,410
British Columbia	14,626	14,690	13,095	12,209	12,523	12,081	11,364
Yukon	5,450	11,350	7,833	11,350	11,150	11,550	11,350
Northwest Territories	8,460	9,000	9,300	9,640	16,500	16,867	25,450
Canada	12,587	11,512	11,021	10,400	10,391	10,278	9,831

<sup>1</sup> These provinces reported optometrists practising in more than one province; therefore, total for Canada does not agree with sum of provinces (five optometrists were double-counted).

<sup>2</sup> Optometrists registered and licensed but not resident.

<sup>3</sup> Only available data for 1980, for provinces, are as of June 30, 1980.

**3.28 Licences issued to professional nurses, 1975 and 1980-85**

Province or territory <sup>1</sup>	Licences issued						
	1975	1980	1981	1982	1983	1984	1985
Newfoundland	3,504	4,687	4,817	4,941	4,997	5,142	5,247
Prince Edward Island	990	1,074	1,127	1,136	1,139	1,181	1,234
Nova Scotia	6,208	7,755	8,172	8,400	8,570	9,043	9,336
New Brunswick	6,562	7,028	7,181	7,309	7,519	7,676	7,841
Quebec	47,818	54,941	56,178	56,393	57,316	58,505	54,067
Ontario	87,717	96,165	98,037	98,632	100,091	100,171	101,704
Manitoba	7,615	9,000	8,654	8,850	9,429	9,734	9,654
Saskatchewan	7,050	8,310	8,523	8,831	9,071	9,409	9,436
Alberta	14,613	18,892	20,104	21,049	22,078	19,967	23,951
British Columbia	18,301	24,675	26,239	26,719	26,744	27,265	27,647
Yukon <sup>2</sup>	—	—	—	—	—	—	—
Northwest Territories <sup>2</sup>	—	293	306	304	340	334	341
Canada	200,378	232,820	239,338	242,564	247,294	248,427	250,458

<sup>1</sup> Some nurses are registered (licensed) in more than one province. Also includes those nurses who are registered in one or more provinces but are actually working/living abroad.

<sup>2</sup> No licences were issued by Yukon or Northwest Territories up to and including 1975. Although Yukon remained the same in 1980, Northwest Territories issued 293 licences.

### 3.29 Licensed pharmacists<sup>1</sup> and population per pharmacist, 1975 and 1980-85

Province or territory	Number of licensed pharmacists						
	1975	1980	1981	1982	1983	1984	1985
Newfoundland	202	308	334	367	380	395	414
Prince Edward Island	42	54	52	54	67	53	59
Nova Scotia	388	554	550	589	627	631	674
New Brunswick	215	343	353	372	413	398	415
Quebec	2,552	3,357	3,534	3,629	3,637	3,787	3,844
Ontario	4,939	5,724	5,813	5,944	6,163	6,339	6,525
Manitoba	805	860	889	919	933	935	928
Saskatchewan	1,268	1,293	1,313	1,274	1,317	1,295	1,297
Alberta	1,665	2,080	2,141	2,284	2,371	2,494	2,490
British Columbia	1,769	1,986	2,029	2,099	2,515	2,661	2,128
Yukon	7	9	10	12	13	15	15
Northwest Territories	20	20	21	26	24	25	24
Canada	13,872	16,588	17,039	17,569	18,460	19,028	18,813
Population per licensed pharmacist							
Newfoundland	2,747	1,842	1,699	1,563	1,521	1,466	1,403
Prince Edward Island	2,810	2,267	2,358	2,289	1,870	2,398	2,168
Nova Scotia	2,130	1,529	1,546	1,457	1,384	1,390	1,310
New Brunswick	3,134	2,028	1,973	1,893	1,723	1,803	1,736
Quebec	2,434	1,910	1,828	1,789	1,794	1,733	1,719
Ontario	1,666	1,485	1,492	1,478	1,443	1,423	1,401
Manitoba	1,265	1,190	1,159	1,135	1,130	1,140	1,159
Saskatchewan	723	746	743	775	760	784	786
Alberta	1,090	1,059	1,070	1,024	990	941	953
British Columbia	1,389	1,368	1,368	1,338	1,130	1,081	1,362
Yukon	3,114	2,522	2,350	1,892	1,715	1,540	1,513
Northwest Territories	2,115	2,250	2,214	1,854	2,063	2,024	2,120
Canada	1,650	1,460	1,439	1,411	1,355	1,328	1,356

<sup>1</sup> Includes non-practising and honorary pharmacists.

### 3.30 Personnel (full-time equivalents<sup>1</sup>), for reporting public hospitals<sup>2</sup>, by type of hospital, 1985-86 and totals, 1976 to 1984-85

Province or territory <sup>3</sup>	General	Special <sup>4</sup>	Rehabilitation	Extended care <sup>5</sup>	Other <sup>6</sup>	Total
1985-86						
Newfoundland	7,696	640	111	796	100	9,342
Prince Edward Island	1,559	—	—	85	—	1,644
Nova Scotia	12,454	2,231	193	225	—	15,102
New Brunswick	10,598	—	52	1,186	—	11,836
Quebec	83,115	7,938	1,946	22,091	—	115,091
Ontario	103,528	7,334	1,224	8,600	—	120,687
Manitoba	15,034	120	—	926	22	16,102
Saskatchewan	12,899	—	—	734	—	13,634
Alberta	29,797	1,926	714	5,777	—	38,214
British Columbia	32,375	2,528	562	3,822	—	39,287
Northwest Territories	474	—	—	—	—	474
Canada	309,530	22,717	4,801	44,243	122	381,413
Totals, 1976 to 1984-85						
Canada	299,769	21,810	4,123	43,182	124	369,008
1984-85	295,208	21,879	4,677	40,528	141	362,434
1983-84	290,254	20,597	4,592	37,358	135	352,936
1982-83	291,651	19,704	4,579	35,273	98	351,305
1981-82	285,733	17,220	4,148	36,214	93	343,410
1980-81	277,643	16,747	3,986	35,892	88	334,355
1979-80	271,759	14,706	4,250	34,535	84	325,333
1978-79	268,751	13,838	4,229	32,399	110	319,327
1977-78	264,937	13,168	4,326	31,426	85	313,942

<sup>1</sup> Full-time equivalents are calculated assuming a 37.5 hour work week and include the paid hours of full- and part-time employees.

<sup>2</sup> Excludes data for federal and private hospitals.

<sup>3</sup> All six hospitals in Yukon are federal.

<sup>4</sup> Includes pediatric, psychiatric short-term and other special hospitals.

<sup>5</sup> Includes chronic care and psychiatric long-term care hospitals.

<sup>6</sup> Includes nursing stations and outpost hospitals.

**3.31 Total health expenditures, public and private, selected years**

Year	Expenditures \$'000,000	Annual percentage increase	Percentage of GNP	Per capita \$
1960 <sup>f</sup>	2,142	—	5.5	120
1965 <sup>f</sup>	3,416	9.8	6.0	174
1970	6,256	12.9	7.1 <sup>f</sup>	293
1975 <sup>f</sup>	12,148	14.2	7.2	535
1980 <sup>f</sup>	22,358	13.0	7.4	929
1981	26,231	17.3	7.6	1,077
1982	30,705	17.1	8.5	1,245
1983	34,127	11.1	8.7	1,370
1984 <sup>p</sup>	36,832	7.9	8.6	1,465
1985 <sup>p</sup>	39,168	6.3	8.5	1,543

**3.32 Percentage distribution of health expenditures, public and private, by category, selected years**

Category	1960	1965	1970	1975 <sup>f</sup>	1980 <sup>f</sup>	1981	1982	1983	1984 <sup>p</sup>	1985 <sup>p</sup>
Hospitals	37.9 <sup>f</sup>	42.7	45.0	45.8	41.5	41.8	42.4	42.0	41.1	40.6
Homes for special care	5.7 <sup>f</sup>	6.1	7.2	8.2	10.7	10.5	10.5	10.6	10.4	10.2
Physicians	16.6	16.0	16.6	15.9	15.4	15.2	15.1	15.6	15.8	16.0
Dentists	5.1	4.7	4.2	4.9	5.8	5.6	5.4	5.4	5.5	5.6
Other professional services	2.3	1.9	1.7	1.1	1.2	1.2	1.3	1.3	1.3	1.3
Drugs and appliances	14.5	13.3	12.5	10.8	11.0	11.2	11.0	11.4	12.1	12.6
All other health costs	17.9 <sup>f</sup>	15.3	12.8	13.3	14.4	14.5	14.3	13.7	13.8	13.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

**3.33 Governmental health expenditures, federal, provincial and local, selected years**

Year	Expenditures \$'000,000	Annual percentage increase	Percentage of GNP	Per capita \$	Percentage of total national health expenditures
1960	904	—	2.4	50	42.2 <sup>f</sup>
1965	1,779	14.5	3.1 <sup>f</sup>	90	52.1
1970	4,392	19.8	5.0 <sup>f</sup>	206	70.2
1975 <sup>f</sup>	9,263	16.1	5.5	408	76.2
1980 <sup>f</sup>	16,695	12.5	5.5	694	74.7
1981	19,791	18.5	5.7	812	75.4
1982	23,249	17.5	6.4	943	75.7
1983	25,917	11.5	6.6	1,041	75.9
1984 <sup>p</sup>	27,872	7.5	6.5	1,108	75.7
1985 <sup>p</sup>	29,618	6.3	6.4	1,167	75.6

**3.34 Total national health expenditures, public and private, selected years (million dollars)**

Province or territory	1960 <sup>f</sup>	1965	1970	1975 <sup>f</sup>	1980 <sup>f</sup>	1981	1982	1983	1984 <sup>p</sup>	1985 <sup>p</sup>
Newfoundland	31	52	97	239	451	527	602	684	714	745
Prince Edward Island	10	14	26	55	116	125	138	144	152	163
Nova Scotia	74	116	195	393	670	815	953	1,051	1,168	1,259
New Brunswick	62	87	144	274	552	667	802	874	936	975
Quebec	530	953 <sup>f</sup>	1,708	3,284	5,908	6,794	7,745	8,510	9,130	9,701
Ontario	821	1,291	2,438	4,479	7,653	8,894	10,416	11,846	13,089	14,099
Manitoba	114	167	295	545	990	1,174	1,336	1,476	1,612	1,730
Saskatchewan	116	157	238	459	853	989	1,174	1,359	1,471	1,550
Alberta	163	265	486	1,012	2,157	2,633	3,422	3,708	3,846	4,062
British Columbia	219	308	618	1,370	2,923	3,506	3,953	4,294	4,523	4,672
Yukon and Northwest Territories	3	5	11	37	86	107	164	180	190	213
Total	2,142	3,416 <sup>f</sup>	6,256	12,148	22,358	26,231	30,705	34,127	36,832	39,168



**3.35 Total national health expenditures, public and private, 1984<sup>P</sup> and 1985<sup>P</sup> (million dollars)**

Category	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT and NWT	Total
<b>1984<sup>P</sup></b>												
Hospitals	337	65	560	422	4,201	5,161	640	522	1,511	1,653	76	15,149
Homes for special care	84	20	90	124	1,139	1,031	220	287	393	439	5	3,831
Physicians	78	18	162	115	1,261	2,350	199	176	559	873	17	5,810
Dentists	17	7	57	30	357	849	82	72	164	376	2	2,014
Other professional services	3	1	4	5	89	218	16	16	67	71	1	490
Drugs and appliances	91	23	181	121	959	1,756	194	178	396	547	9	4,455
All other health costs	104	18	114	119	1,124	1,724	261	220	756	564	80	5,083
<b>Total expenditures</b>	<b>714</b>	<b>152</b>	<b>1,168</b>	<b>936</b>	<b>9,130</b>	<b>13,089</b>	<b>1,612</b>	<b>1,471</b>	<b>3,846</b>	<b>4,523</b>	<b>190</b>	<b>36,832</b>
<b>Per capita (\$)</b>	<b>1,231</b>	<b>1,206</b>	<b>1,340</b>	<b>1,309</b>	<b>1,394</b>	<b>1,462</b>	<b>1,520</b>	<b>1,460</b>	<b>1,636</b>	<b>1,582</b>	<b>2,624</b>	<b>1,465</b>
<b>1985<sup>P</sup></b>												
Hospitals	350	66	584	434	4,317	5,510	678	538	1,647	1,703	84	15,912
Homes for special care	86	21	95	128	1,196	1,067	228	300	417	463	5	4,007
Physicians	82	20	179	122	1,344	2,617	207	185	591	885	18	6,249
Dentists	18	7	63	33	388	928	90	77	177	395	2	2,178
Other professional services	3	1	4	6	99	234	17	17	69	76	1	526
Drugs and appliances	102	28	208	135	1,070	1,966	210	196	432	587	10	4,942
All other health costs	104	20	126	117	1,287	1,777	300	237	729	563	93	5,354
<b>Total expenditures</b>	<b>745</b>	<b>163</b>	<b>1,259</b>	<b>975</b>	<b>9,701</b>	<b>14,099</b>	<b>1,730</b>	<b>1,550</b>	<b>4,062</b>	<b>4,672</b>	<b>213</b>	<b>39,168</b>
<b>Per capita (\$)</b>	<b>1,282</b>	<b>1,279</b>	<b>1,431</b>	<b>1,354</b>	<b>1,473</b>	<b>1,554</b>	<b>1,615</b>	<b>1,523</b>	<b>1,721</b>	<b>1,618</b>	<b>2,861</b>	<b>1,543</b>

**Sources**

3.1 – 3.23, 3.29 Health Division, Statistics Canada.

3.24 – 3.28 Canada Health Manpower Inventory, Department of National Health and Welfare.

3.31 – 3.35 Information Systems Directorate, Policy, Communications and Information Branch, Department of National Health and Welfare.



CHAPTER 4

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# EDUCATION

## CHAPTER 4

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### EDUCATION

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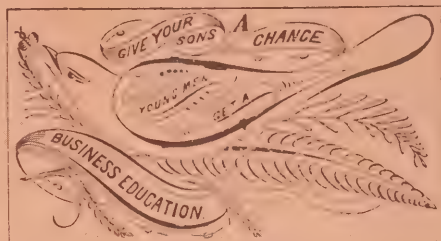
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## THEN

"The oldest university in Canada, viz., King's College, Windsor, Nova Scotia, dates from 1789, and claims to be also the oldest university in His Majesty's Overseas Dominions." (1919)

In 1867 in New Brunswick, there were three classes of teachers, each class being qualified to teach different subjects. Male teachers of the First Class were qualified to teach spelling, reading, writing, arithmetic, English grammar, geography, history, book-keeping, geometry, mensuration, land surveying, navigation and algebra. Female teachers of that class were qualified to teach only the same first seven subjects, with the addition of common needle work. Salaries also varied between male and female teachers: a male teacher of the First Class was paid \$150 per annum, while a female teacher received \$110. (1867)

"The second decade of the century has seen the most rapid development in technical and vocational education... By 1915, manual training courses in Ontario had branched out into industrial, technical and art schools, and in that year a large



**THE BRITISH AMERICAN COMMERCIAL COLLEGE**  
 was established in 1861, and is now the most popular and successful school in the Dominion for the  
**Education of Young Men, Middle-aged Men and Boys,**  
 in commercial branches.  
 Special attention is given to the science of **BOOKKEEPING** as applied to every department of Trade and Commerce; also to  
**Practical Penmanship, Commercial Arithmetic, Commercial Law, Business Correspondence, Spelling, &c., &c.**  
 Its graduates are competent accountants, and are sought for by merchants and business men, in want of help, in all parts of the Dominion.  
 There are no vacations. Students may enter at any time with equal advantage.  
**O'DELL & TROUT, TORONTO.**

technical school was opened in Toronto. The Kelvin and St. John's Technical Schools in Winnipeg date from 1911, and the great technical school in Montreal from the same year." (1924)

## NOW

Between 1973 and 1983, spending on education from kindergarten through graduate studies increased 219% to \$30.5 billion. During the same period, the Consumer Price Index rose by 146%.

The 467,300 full-time students in Canadian universities in 1985-86 were equivalent to 14.5% of the population aged 18 to 24, more than double the proportion in 1960. In addition, 285,000 part-time students were registered in degree programs.

In 1985-86, total full-time enrolment at the postsecondary level in community colleges was 322,500, a 46% increase over a decade earlier.

## CHAPTER 4

# EDUCATION

### 4.1 Education in Canada

#### 4.1.1 Summary statistics

Between 1971 and 1981, the median number of years of formal schooling of Canada's adult population rose from 10.6 to 11.8. By 1984, the proportion of adults who were graduates of universities or community colleges stood at an estimated 20.9%, up from 17.6% just five years earlier.

Full-time postsecondary enrolment increased throughout the 1970s and early 1980s, while enrolment at lower levels declined. Total full-time postsecondary enrolment reached 789,800 in 1985-86, a 33% increase from 10 years earlier. Growth was slow in the late 1970s, averaging just over 1% a year. At the beginning of the 1980s, enrolment rose rapidly, gaining more than 5% each year, but by mid-decade, annual increases had dropped to less than 1%.

About six out of 10 full-time postsecondary students are enrolled in universities; the rest attend community colleges. After two years of decline, full-time university enrolment started to increase in 1979-80. The following year, numbers surpassed the previous high reached in 1976-77 and continued rising. The 1985-86 total of 467,300 was a 26% increase over 1975-76.

Full-time postsecondary students in community colleges totalled 322,500 in 1985-86, up 46% from 1975-76. Although growth was steady, annual gains were greatest in the early 1980s and have since fallen off.

The number of full-time postsecondary teachers rose in both universities and community colleges, but more rapidly in the latter to keep pace with faster enrolment growth. In 1984-85, full-time university teachers totalled 35,100; full-time community college faculty teaching at the postsecondary level numbered 24,100.

Nearly 4.9 million students were enrolled in elementary and secondary schools in 1985-86. This represented a 15% drop from the all-time high of 5.8 million in 1970-71. Since that year, elementary-secondary enrolment has fallen

steadily. The rate of decline, however, is leveling off. Annual losses in the late 1970s were around 2%; since 1982-83, the yearly loss has been about 0.5%.

In 1984-85, there were 271,000 full-time elementary-secondary teachers. This was nearly a 5% decrease from the high of 284,900 in 1976-77. With the exception of one year, the elementary-secondary teaching force has declined annually since then. But this rate of decrease did not match the more rapid decline of elementary-secondary enrolment. As a result, the number of teachers in relation to the number of students has risen.

**Spending on education** from kindergarten through graduate studies rose steadily to \$30.5 billion in 1983, an increase of 219% from a decade earlier. During the same period, the Consumer Price Index went up by 146%. Elementary-secondary education absorbed \$20.0 billion of this total. University education received \$6.0 billion; college, \$2.4 billion; and the trades level, \$2.0 billion.

#### 4.1.2 History of education

The earliest organized forms of education in the territory that was to become Canada were under church control. Quebec was founded as a colony of France in 1608, and the first school opened soon afterward. But it was not until 1824 that Quebec passed an education act. Nova Scotia had done so in 1766, followed by New Brunswick in 1802 and Ontario in 1807. Nevertheless, until the mid-19th century, education continued to be church-dominated.

During the 1840s and 1850s, a public system of education was developed in Quebec (Canada East), supplemented by schools and colleges operated by Roman Catholic orders. At the same time, Ontario (Canada West) also established a public system, as did the Maritimes (New Brunswick, Nova Scotia and Prince Edward Island). Higher education before Confederation was conducted in private institutions, most controlled by religious authorities.

**Constitutional responsibility.** The Constitution Act, 1982, re-affirmed the provisions of the Constitution Act, 1867 (formerly called the British North America Act), Section 93 of which placed education "exclusively" under the control of each province. Thus, variations in the systems that already existed in Ontario, Quebec, New Brunswick and Nova Scotia were ratified. Other provinces that were admitted (Manitoba 1870, British Columbia 1871, Prince Edward Island 1873, Saskatchewan and Alberta 1905, and Newfoundland 1949) were able to establish their own education systems.

Despite variations such as ages of compulsory attendance, course offerings and graduation prerequisites, the education systems that evolved in each province basically consist of three levels: elementary, secondary and postsecondary. The number of years required to complete each level and the dividing lines between them differ from province to province.

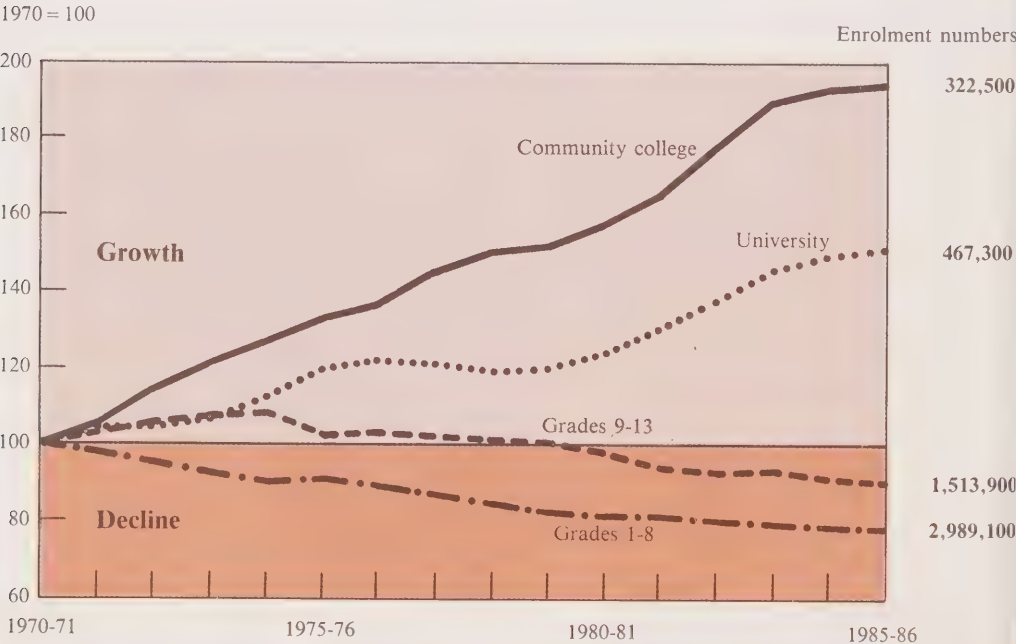
**Growth in education.** Until the late 1940s, Canada, according to a report by the Organization for Economic Co-operation and Development, was "one of the less educationally developed of the great democracies". Today, Canada ranks among the world's educational leaders.

In the post-war period, Canada's enrolment increased faster than that of any other industrialized country, spurred by unprecedented population growth combined with the desire of students to continue to higher levels. The population grew because of the post-war baby boom and sizable net immigration. Rising expectations and widespread belief in education as a means of upward mobility encouraged students to stay in school longer.

Between 1951 and 1971, elementary-secondary enrolment more than doubled. The 1960s were the decade of fastest growth, with the number of elementary-secondary students increasing 40%, and postsecondary enrolment, 170%. Enrolment reached its peak in 1970-71.

During the 1960s, education expenditures grew at an average yearly rate of more than 15% (sometimes 20%) to \$7.7 billion in 1970. These expenditures were equivalent to 9% of GNP and absorbed 22% of government spending, more than any other major area. By 1983, expenditures on education represented an estimated 7.8% of GNP, and social welfare had assumed first place.

Chart 4.1  
**Enrolment growth and decline, 1970-71 to 1985-86**





## 4.2 Elementary and secondary schools

### 4.2.1 Administration and organization

Each province has a department of education headed by a minister who is an elected member of the provincial cabinet or, in the case of the Yukon and Northwest Territories, a councillor.

While the education minister has general authority, day-to-day operation of the department is carried out by a deputy minister who advises the minister and supervises all functions of the department. These functions include: supervision and inspection of elementary and secondary schools; provision of curriculum and school organization guidelines; approval of new courses and textbooks; production of curriculum material; finance; teacher certification; prescription of regulations for trustees and teachers; research; and support services such as libraries, health and transportation.

In most provinces, responsibility for teacher training has been transferred from teachers' colleges to universities. Increasingly, an elementary teacher must have a bachelor's degree. The Nova Scotia Teachers' College is the only remaining institution of its kind.

Schools in all provinces are established under a public school act and operated by local authorities answering to the provincial government and resident ratepayers. Provincial authorities delineate school board areas and the responsibilities of boards. With the growth of cities and towns, and of educational facilities and requirements, small local boards have been consolidated into central, regional or county units with jurisdiction over both elementary and secondary schools in a wider area. The boards, composed of elected or appointed trustees or commissioners, are responsible for school management. Their powers, determined and delegated by the legislature or education departments, vary from province to province. Generally, they handle the business aspects of education — establishment and maintenance of schools, appointment of teachers, purchase of supplies and equipment, details of school construction, and budget preparation. Boards are authorized to levy taxes or to requisition taxes from municipal governments and manage grants from the department.

At the elementary and secondary levels, schools are classified according to the nature of control: public, private or federal. Public schools, including Protestant and Roman Catholic separate schools, are operated by local education authorities according to public school

acts of the provinces. Private schools are operated and administered by individuals or groups. Schools for the handicapped, most under direct provincial government administration, provide special facilities and training. Federal schools are administered directly by the federal government.

One obvious difference among provincial education systems is provision for separate schools. Some provinces allow religious groups to establish schools under the authority of the education department. They must conform to department regulations on curriculum, textbooks and teacher certification. As legal corporations, separate school boards can levy taxes and receive government grants.

About 5% of all elementary-secondary students attend schools that are run independently of the public systems. Provincial policies vary from direct operating grants to minimum provincial support.

A number of strategies have been developed to educate children with special needs or abilities, an estimated 5% to 10% of all students. They may be accommodated in separate institutions (public or private) or in special or integrated classes in regular schools. For academically gifted students there are enriched and accelerated programs. Schools for the blind and deaf are generally administered directly by a province, sometimes by interprovincial agreement. Many local systems provide special schools or classes for children with learning disabilities.

Although education is primarily a provincial responsibility, the federal government has assumed direct control over the education of persons beyond the bounds of provincial jurisdiction: native people, armed forces personnel and their families, and the inmates of federal penal institutions.

Education of registered Indian and Inuit children is an obligation of the Department of Indian and Northern Affairs. The Minister of the department is authorized to maintain schools for these children directly or provide access to educational services in public or private schools.

In 1984-85, the federal government owned and operated 159 schools on Indian reserves. In addition, native band councils managed 209 schools, although the Minister makes regulations on matters such as curriculum, buildings, inspection and teaching.

In the Yukon and Northwest Territories, the Department of Indian and Northern Affairs

co-operates with the territorial departments of education for the schooling of native children.

Across Canada, about half the native children attend provincial public schools. The federal government reimburses the provinces, either by paying tuition or contributing to the schools' capital costs.

Counselling units in Ottawa and Winnipeg assist northern native students attending high school, technical school, college or university in Southern Canada.

The Department of National Defence maintains schools for dependents of service personnel at military establishments in Canada and overseas. The curriculum of these schools in Canada follows that of the province where they are located. The policy, however, is to avoid building schools where children can attend local institutions. Provinces are reimbursed on a per-pupil basis for armed forces dependents in public schools.

In 1984-85, there were nine overseas schools — in Belgium, the Netherlands and the Federal Republic of Germany. The curriculum to Grade 8 in the English schools is not patterned after any province; Grades 9 to 13 follow the Ontario curriculum. In the French schools, all grades follow the Quebec curriculum.

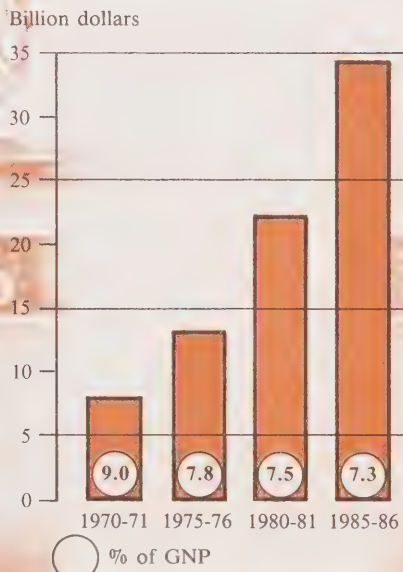
**Grade structure.** School attendance is compulsory for about 10 years in every province. The starting age is 6 or 7, and the minimum leaving age, 15 or 16. The elementary-secondary program, however, usually extends over 12 years. Some provinces include kindergarten in their elementary schools, while in other provinces, the only pre-Grade 1 classes are in private schools operating under varying degrees of provincial supervision.

Levels within elementary-secondary schools differ from one province to another. The elementary level covers the first six grades in six provinces and Northwest Territories; in others, Grades 7 and/or 8 are considered elementary. As a result, interprovincial variations also exist at the secondary (high) school level. These schools include five or six grades and may be further subdivided into junior high schools, senior high schools or junior-senior high schools.

The curriculum of elementary-secondary schools also varies, although the provinces share general commonalities. Programs from Grade 1 to the beginning of secondary school are usually designed to develop the same basic skills in reading, writing, speaking and mathematics.

Chart 4.2

**Expenditures on education and percent of Gross National Product, selected years**



At one time, secondary schools were predominantly academic and prepared students for university. Vocational schools were separate institutions located only in large cities. Today, in addition to technical and commercial high schools, most secondary institutions offer both purely academic courses as a prelude to university and vocational courses ranging from one to four years that prepare students either for an occupation or for further postsecondary education at a community college.

Promotion by subject rather than by grade has been implemented to a large extent in secondary schools. Some jurisdictions have partially or entirely eliminated age-grouped classes. Graduation depends on accumulation of a requisite number of credits. Graduation certificates are issued by the province on the recommendation of individual schools.

**Finance.** In 1983, expenditures on the elementary-secondary level were estimated at \$20.0 billion. This represented nearly 66% of all education spending. Over the last 10 years, the elementary-secondary share has fluctuated between 65% and 67%.

Financing elementary-secondary education has traditionally been a municipal responsibility, with local real estate taxes paying most of the cost of basic education. School boards determine their budgets, and thus, the taxes required. In most cases, municipalities levy and collect taxes for the boards, but where there is no municipal organization, the boards have these powers. Taxes on real estate are still a vital element of elementary-secondary finance, but the municipal share has declined to 24%; in 1960 it was 49%.

The relative contributions of the municipal and provincial levels differ from province to province. A system of formula financing determines the distribution. The intention is first to secure minimum standards, and second, to moderate differences of wealth and income in different localities.

Part of the support is actually federal, channelled through the provinces. Direct federal expenditures cover some 3% of the elementary-secondary total, including what is spent on Indian and overseas schools. The federal government also contributes to elementary-secondary education under a federal-provincial program for the development of bilingualism in education.

### 4.3 Postsecondary education

Postsecondary education can be obtained from community colleges (non-degree-granting) and

universities (degree-granting). As the term "postsecondary" suggests, admission to this level is normally contingent upon graduation from secondary school. Specifically excluded from postsecondary education is trade/vocational training, although it is available in some community colleges.

A feature of postsecondary education in Canada today is its variety. Colleges and universities offer a wide range of programs at a number of levels culminating in diplomas, certificates or degrees, which signify that graduates are qualified for semi-professional or professional occupations.

No single government office, provincial or federal, has sole responsibility for postsecondary education. Each provincial government has developed a different set of structures to govern and fund higher education.

**Finance.** Postsecondary education in Canada is essentially government-financed. Expenditures on postsecondary education have risen from about \$330.5 million in 1960 to \$2.1 billion in 1970, and an estimated \$8.4 billion in 1983. University education accounted for \$6.0 billion, and community college, \$2.4 billion. Together, federal and provincial governments contributed nearly 85% of the total.

Federal involvement in postsecondary education is mainly financial. From 1951 to 1966, the federal government made direct operating grants to eligible universities and colleges, with total allotments to any province calculated per capita of population. In 1967, the federal government stopped paying regular operating grants directly to institutions, except for sponsored research and to four federally owned establishments. Instead, under the Federal-Provincial Fiscal Arrangements Act, transfers were made to the provincial governments. This act was replaced in 1977 by The Federal-Provincial Fiscal Arrangements and Established Programs Financing Act.

The 1977 act specified a method of financing federal contributions to postsecondary education, hospital insurance and medicare. Cost-sharing formulas for these three programs were replaced by a formula under which federal contributions are determined independently of program costs in the provinces. Federal contributions take the form of cash payments and a transfer of tax points to the provinces. Postsecondary education accounts for about one-third of the total contribution. About one-third of the total value of the tax transfer to the provinces is considered to be in respect of postsecondary education. This split, however, does not imply any necessary spending allocation by the provinces.



### 4.3.1 Universities and degree-granting colleges

Universities offer education designed to develop critical and creative abilities as well as to provide a pool of highly qualified manpower. Any institution that has been given the power to grant degrees is normally called a university, although it may also be called a college, institute or school. In addition to universities *per se*, the definition includes liberal arts colleges, colleges of theology, and a number of other institutions that grant degrees in specialized fields such as agriculture or fine arts. Liberal arts colleges are smaller institutions with degree programs usually only in arts. Colleges of theology offer degrees in theology only.

**History.** The first institutions of higher education in Canada followed European models. The Séminaire de Québec, founded in 1663, was the base upon which Université Laval was established in 1852. The oldest English-language institution, King's College in Windsor, Nova Scotia, opened in 1789.

By 1867, Quebec had three universities and 712 classical colleges. There were three universities in New Brunswick, five in Nova Scotia and seven in Ontario.

Queen's and Victoria universities, supported by the Presbyterian and Methodist churches, had been chartered in Ontario. Their purpose was to train clergy and a small, select group of laymen who wished to enter the professions. Teaching concentrated on theology, philosophy, the classics, medicine and law.

About the middle of the 19th century, McGill University introduced courses in natural sciences, opened a normal school for elementary teachers, and pioneered instruction in applied science and engineering. Similar changes were taking place at other institutions — Dalhousie in Halifax, Queen's in Kingston, and the University of Toronto.

While the trend in English-language institutions was toward practical and scientific studies and secular control, in the French-language sector, emphasis continued on classical studies under clerical control.

When the four western provinces were settled, other structures began to emerge. The American example of land-grant colleges led to a strong commitment to extension programs and community service. The University of Manitoba was granted a charter in 1877. Provincial universities were established in Alberta in 1908 and in Saskatchewan in 1909. The University of British Columbia, although chartered in 1908, did not open until 1915. By the outbreak of World War I,

a score of universities had developed distinctive characteristics. To the traditional faculties of theology, law and medicine, schools of engineering, agriculture, forestry, education, dentistry and home economics had been added.

Some institutional expansion occurred after World War I; by 1939, Canada had 28 universities. They varied in size from the University of Toronto with full-time enrolment of about 7,000 to institutions with fewer than 1,000 students. The total of about 40,000 students represented 5% of the population aged 18 to 24.

Radical changes began after World War II. As a result of a veterans' rehabilitation program, 53,000 ex-soldiers entered the universities between 1944 and 1951. The immediate problem of space was solved by temporary buildings and creation of satellite colleges. By the mid-1950s, places vacated by veterans had been filled with an increasing number of high school graduates. Demands for university expansion continued, but the full force of this pressure came in the 1960s when enrolment rose from 128,600 to 323,000 in 1971-72.

In the early 1970s, growth rates slowed, despite the continued increase in the population aged 18 to 24. Part-time enrolment began to increase more rapidly than the number of students registered for full-time study.

**Organization and administration.** With minor exceptions, the provinces have authorized the establishment and institutional structures of universities through legislative acts. No two Canadian universities are alike, but their structure and organization are relatively standard.

Universities are not always independent establishments — they can be associated with a parent institution in several ways. A federated college or university has a high degree of independence in that it is responsible for its own administration and can grant degrees. This degree-granting power, however, is temporarily suspended while the federation exists. Some federated institutions suspend only part of their degree-granting powers, retaining the right, for example, to grant degrees in theology, but not in arts and sciences.

Like federated colleges, affiliated institutions are responsible for their own administration, but they have no power to grant degrees. In both federated and affiliated institutions, the parent university is responsible for teaching and granting degrees in all subjects covered by the federation or affiliation agreements.

Constituent universities and colleges represent still another form of organization. These institu-



tions are fully incorporated into the parent universities, both administratively and academically.

Reflecting the linguistic profile of the country, most universities are English-speaking. Of the seven independent French-speaking institutions, four are in Quebec; Nova Scotia, New Brunswick and Ontario each have one. In addition, two Ontario universities are bilingual, offering instruction in both English and French. Others conduct classes in one language only, but permit students to submit term papers, examinations and theses in either language. As well, there are a number of French affiliates of English and bilingual institutions.

The vast majority of universities receive heavy financial support from the federal and provincial governments. The largest share — about 61% — comes from the provincial governments. Direct federal funding, which is mainly for research, makes up another 10.5%; private donations, 5.5%; tuition fees, 11.0%; and other sources, about 12.0%. These figures, however, hold at the national level only. For individual institutions, the extent of government funding ranges from a minimal proportion of income at small, church-affiliated institutions to over 90% of the budget of some universities.

The institutional structure of the universities is established by provincial legislative act. The traditional form of university government is a two-tier system: a board of governors and an academic senate. By statute, corporate power usually resides in the board of governors, which makes final policy decisions. The board exercises formal control over matters such as finance and the physical plant. The majority of board members are private citizens drawn from the business and professional communities, who are appointed for short terms. Participation on boards by academic administrators has increased in recent years, and faculty and students have been admitted.

The senate is the university's senior academic body. Although it is subject to the authority of the board of governors, the senate is responsible for academic policy, covering matters such as admission requirements, approval of courses and programs, qualifications for degrees, and academic planning.

**Admission.** Every university, and in some instances each faculty, sets its own admission standards. Nonetheless, institutions in the same province generally maintain similar requirements, particularly for undergraduate arts and science programs. In all the provinces

except Ontario and Quebec, prospective university students must complete 12 years of elementary-secondary school.

Most Ontario universities require completion of 13 grades, although some make provision to admit limited numbers with 12 years of school, and a few offer a preliminary (qualifying) year of study that students may take instead of Grade 13.

Quebec students must generally obtain a *diplôme d'études collégiales* (DEC) granted after two years of pre-university study at a *collège d'enseignement général et professionnel* (CEGEP). Entry to a CEGEP is after 11 years of elementary-secondary education.

High school graduation alone does not guarantee acceptance into a university program; specific courses and marks are generally required for entry to each faculty. For applicants who do not meet these criteria but are able to undertake university instruction, most institutions allow for the admission of "mature students" — people aged 21 and over who have been out of school for several years.

**Programs.** Basically, universities confer two types of qualification — degrees and diplomas/certificates — at two levels: undergraduate and graduate. Degrees are offered by most universities at three levels: bachelor's (BA or BSc) and first professional, master's (MA or MSc), and doctorate (PhD).

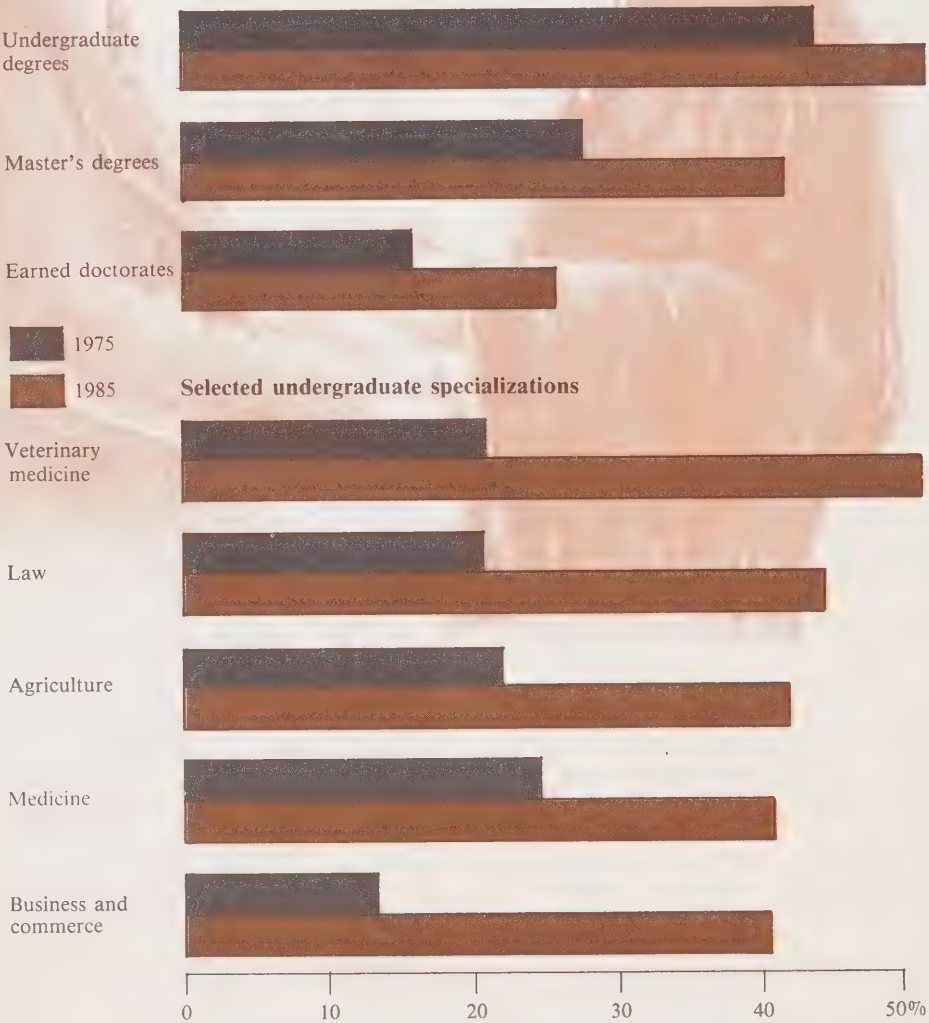
Students in bachelor's and first professional degree programs and those in programs leading to diplomas or certificates are known as undergraduates. Bachelor's degrees require a minimum of three years of full-time study after secondary completion. A distinction may be made between general (pass) and honours degrees, the latter of which are more specialized and may involve an additional year.

Criteria for admission to graduate studies vary in different universities. A bachelor's degree at the honours level is usually necessary for acceptance into a master's program. Entrants to doctoral studies must have a master's degree in the same field and high achievement at the master's level. Professional degrees are granted in disciplines where the normal first degree is not a bachelor's, for example, Doctor of Medicine (MD).

Programs culminating in diplomas have never been a major feature of Canadian universities. Those that are available tend to be in professional areas such as health science, education, agriculture and business.

Each university provides a varied range of courses, but no single institution can offer all

Chart 4.3  
Percentage of university degrees awarded to women and selected undergraduate specializations, 1975 and 1985



of the approximately 1,500 different courses that are now taught across Canada.

**Educational staff.** During the 1960s, the demand for growth necessitated rapid and massive staff recruitment. From about 7,000 in 1960-61, the full-time university teaching force has increased to more than 35,000.

Four ranks of academic staff are recognized in most universities: full professor, associate professor, assistant professor, and lecturer/instructor. Appointments are usually made on the recommendation of a committee constituted for that purpose and in accordance with procedures developed at each institution. Appointees generally must be doctoral degree-holders, but the requirement varies between theoretical and applied fields.

**Students.** The 467,300 full-time students in Canadian universities in 1985-86 were equivalent to 14.5% of the population aged 18 to 24, more than double the proportion in 1960. In addition, 285,000 part-time students were registered in degree programs.

Tuition fees differ from one province to another, from one university to another, and from one faculty to another. In all provinces except Newfoundland and Manitoba, higher fees are required of foreign students. Student fees made up one-quarter of university income in the early 1960s, but with the increase in public funding, the proportion has been reduced to approximately one-tenth.

#### 4.3.2 Community colleges

Traditionally, higher education was the almost exclusive preserve of universities. Now, although universities still account for about 60% of full-time students, postsecondary education is offered in about 200 other institutions which have developed as an alternative to university.

A community college is normally defined as a public or private postsecondary institution conducting semi-professional career programs, and in some instances, university transfer programs. These institutions may also offer some or all of the following: secondary level academic upgrading, trade/vocational courses, and other credit or non-credit programs oriented to community needs. While the term "community college" is used to refer to these establishments in a general sense, this classification includes: colleges of applied arts and technology in Ontario (CAATs); colleges of general and vocational education in Quebec (CEGEPs, an acronym from the French designation *collèges d'enseignement général et professionnel*); institutes of

applied arts and sciences in Saskatchewan; technical/vocational and university-oriented colleges in British Columbia, Alberta and Yukon; institutes of technology or technical institutes; colleges of agricultural technology; and colleges providing training in other specialized fields such as art, fisheries, and marine and paramedical technologies. The Nova Scotia Teachers' College, the only institution of its kind to remain independent of the universities, is also included.

Hospital schools of nursing are not considered community colleges, but do comprise part of postsecondary non-university enrolment. In 1964, Toronto's Ryerson Polytechnical Institute became the first non-hospital institution to train nurses. Since then, most nursing programs have been transferred from hospital schools to community colleges. The former no longer exist in Quebec, Ontario and Saskatchewan. In the other western provinces, training is still offered in hospital schools, but programs are also available in community colleges. Only in the Atlantic region is nurses' training carried out exclusively in hospital schools.

**History.** Many of today's community colleges began as private church-related colleges, public technical schools or university affiliates. In the early 1960s, new educational systems were developed, not only to meet demands resulting from the population explosion, but also to satisfy the increasing need for skilled technical workers. Often on the recommendation of specially appointed commissions, the provinces organized postsecondary non-university education into a community college system either by transforming older institutions or founding new ones. The outcome was the "community college," a type of postsecondary institution designed to offer a range of advanced programs apart from those traditionally associated with university.

Provincial legislation either brought the community colleges into being or enabled their establishment. Not all related institutions were transformed into community colleges and amalgamated into a province-wide network — a few continue to operate privately.

**Organization and administration.** The structure and organization of community colleges and other forms of postsecondary non-university education differ from province to province. The provinces, however, are partially or totally responsible for co-ordinating, regulating and financing community colleges. Financial support is derived substantially, if not completely, from provincial and federal sources, the latter



coming through transfer payments. Some provinces finance them completely, while others do so in part. Similarly, the colleges' local autonomy varies.

Most colleges have a board of governors, although some, notably institutes, come under direct government control. The board members are appointed by the provincial government (in Ontario, some members are chosen by the municipality) or elected, and consist of a combination of lay appointees, faculty, students, parents and non-academic institutional staff. In addition, four provinces — New Brunswick, Quebec, Ontario and British Columbia — have government advisory bodies or "super boards".

There are at least four patterns of provincial government management: (1) direct establishment and operation, largely confined to institutes of technology in the West and the Atlantic provinces; (2) a triangular partnership between the government, colleges and school district boards, existing only in British Columbia; (3) much delegation of provincial administrative responsibility to college boards, co-ordinated by a provincial commission or board, as in Ontario and New Brunswick; and (4) a partnership between the department of education and college boards supplemented by non-governmental college associations, as in Quebec.

**Admission.** Community colleges are based on the philosophy that educational opportunities should include a broad segment of society. Criteria of admission are flexible. Secondary school graduation is usually required, but it may be waived in the case of mature applicants. Qualifying programs are also offered to help them attain the appropriate academic level.

**Programs.** A community college curriculum typically offers a wide range of programs, not all of which are at the postsecondary level. For example, the curriculum may provide trades training, basic upgrading and remedial courses, and programs for personal and community enrichment. The two types of postsecondary programs that may be offered are career/technical and university transfer.

Career/technical programs usually require high school graduation for admission. They prepare students for direct entry into the labour force at a technical, mid-managerial or professional assistant level in fields such as engineering, health sciences, business, social service, and public safety. Programs last at least one year, but more often two or three, and sometimes four.

University transfer programs consist of one or two years of academic instruction that pro-

vide students with standing equivalent to the first or second year of a university degree program, with which application for admission to subsequent years in a degree-granting institution can be made. Transfer arrangements are established either between individual colleges and universities or on a provincial basis.

Since one of the primary objectives of community colleges is to make education accessible to as many potential students as possible, courses may be offered on- or off-campus, day or evening, on a semester, trimester or quarter basis. Most colleges operate year-round.

**Educational staff.** With the emphasis on instruction, community college faculty tend to have heavy teaching loads. Career program instructors, in particular, are generally oriented toward the practical rather than the theoretical side of teaching. They are often hired on the basis of their background in areas such as business, industry or trade.

From an estimated 4,900 in 1964-65, the number of full-time teachers at the postsecondary level in community colleges rose to 24,100 in 1984-85.

**Students.** Total full-time enrolment at the postsecondary level in community colleges was 322,500 in 1985-86, a 46% increase from a decade earlier. About 70% of the students were in career/technical programs; the other 30% were taking university transfer programs.

### 4.3.3 Trade/vocational training

Education at the postsecondary level is not the only option available to Canadian residents who wish to pursue their studies. A large number of institutions provide short-term training in practical skills with immediate labour market applicability. Trade/vocational training makes the school-to-work transition easier for young people and ensures that workers in mid-career have continuing access to new skills and new job opportunities.

Trade/vocational education refers to programs that lead to occupations not at the professional or semi-professional levels. Emphasis is on manipulative skills and the performance of well-defined procedures with varying degrees of complexity and responsibility, rather than on the application of ideas and principles. The object is to prepare students to work in specific trades or occupations after a relatively short period of instruction.

Trade/vocational training varies between and within provinces. It is offered in public and private institutions such as community colleges,



public trade schools and vocational centres. It may also take place on the job, in apprenticeship programs or in training programs of industry.

**History.** The federal government's involvement in training, particularly in the institutional aspects, dates back to the early years of this century when rapid industrialization gave added importance to technical skills. Since public schools and universities rarely offered such instruction, this was one of the first areas of education in which the federal government became involved.

Initial federal involvement, however, was essentially financial. In co-operation with several provinces, an agricultural training program was set up in 1913. In 1919, under the Technical Education Act, federal authorities offered to support provincial programs, but few provinces were ready to participate.

By World War II, enough programs had been instituted to warrant appointment of a national council of federal, provincial and public representatives to advise the Labour Minister on matters relating to vocational education. At that time, most vocational institutions were administered by a variety of provincial government departments such as labour, agriculture, commerce and industry.

During the 1950s, a shortage of technical manpower prompted federal officials to give the provinces more aid for vocational training. By 1960, about 30 technical institutes had been opened. The Technical and Vocational Training Assistance Act, designed to encourage the provinces to extend and improve facilities, was passed in 1960. Thereafter, new comprehensive schools frequently incorporated vocational programs. Federal participation increased after 1967 with adoption of the Adult Occupational Training Act and purchase of courses given in various types of provincial institutions. Under this act, the federal government took a more active role in decisions about the selection of trainees, types of training and geographic distribution of training. Employer-centred training was brought within the scope of the act by a 1972 amendment.

This legislation was replaced in 1982 by the National Training Act, which established the National Training Program. The program was operated in partnership with the provinces and territories and administered through Canada Employment Centres across the country. The National Training Program supported training for which there was labour market demand through the purchase of courses from com-

munity colleges and vocational schools, a shared-cost incentive training program with employers, and establishment of a fund to provide or improve training facilities.

In 1985, the federal government revamped its approach to training with the Canadian Jobs Strategy, designed to increase job security for Canadians and contribute to economic growth.

**Programs and institutions.** Trade/vocational programs emphasize the performance of established procedures and techniques. Most programs can be completed in less than a year, and courses for less complex occupations may last only a few weeks.

As well as public trade schools, institutions offering trade/vocational training include the trade divisions of community colleges and schools for specific occupations such as forestry, police and firefighting. Nursing assistant (nurses' aide) programs are offered in public trade schools, hospital schools and establishments that operate solely as nursing assistant schools.

Public trade schools and vocational centres concentrate on teaching one or more vocational skills. Most such schools are under the administration of a provincial department of education. They should not be confused with public vocational or technical secondary schools administered by local school boards. Trade schools may be separate establishments or divisions of a community college. Not all community colleges provide trade-level training, but those that do usually have separate divisions or centres.

Only people who have left the regular school system and are older than compulsory age may attend. High school graduation is not usually required. Depending on the province and the trade, admission standards can range from Grade 8 to Grade 12.

In Quebec, trade/vocational training is organized somewhat differently, based on the province's definition of an adult student. "La loi sur la formation professionnelle des adultes" defines adult students as people 16 and older who have not attended school for at least 12 consecutive months. Most adult vocational instruction takes place in "les écoles polyvalentes", which are the equivalent of Quebec high schools. Although both the regular secondary level and adult training programs are administered by local school boards, the administration of each level is separate. The écoles polyvalentes are the main source of public trade/vocational training in Quebec, although specialized establishments and some community colleges also have enrolment at this level of instruction.

A number of institutions offer academic upgrading designed to raise trainees' general level of education in one or a series of subjects. Courses may be taken to qualify for admission to higher academic studies or vocational training. However, completion of levels corresponding to the final grades of secondary school does not give high school graduation status.

Rather than attend an educational institution, individuals may acquire training related to a specific trade or occupation as they work. On-the-job training is organized instruction offered in a production environment.

Apprenticeship programs combine on-the-job training with classroom instruction. Persons contract with an employer to learn a skilled trade and eventually reach journeyman status. Apprentices may be registered with a provincial or territorial labour or manpower department. The department sets standards for journeyman qualification: minimum age, educational levels for admission, minimum wages, duration of apprenticeship and the ratio of apprentices to journeymen. Non-registered apprentices enter into a private agreement with an employer, perhaps in association with a labour union. They are not subject to regulations established by the provincial department for that trade.

In co-operation with the provinces, the federal government has introduced standard interprovincial examinations to promote the mobility of journeymen. Those who pass examinations in certain apprenticeable trades have an interprovincial seal attached to their certificate, allowing them to work in any province.

Business and industrial establishments train new employees, retrain experienced workers or upgrade their qualifications. Publicly supported, in full or in part, or entirely financed by the company, training can be on-the-job, classroom instruction, or a combination of the two.

In 1985, the federal Department of Employment and Immigration inaugurated the Canadian Jobs Strategy, a co-operative effort with the provinces, business, labour and community groups for training and skill development. The strategy consists of six programs, four of which focus specifically on training. These programs are designed to help: workers whose jobs are threatened by changing technology and economic conditions; women and young people entering the labour market; the long-term unemployed; and employers who need workers with specialized training.

The federal Vocational Rehabilitation for Disabled Persons Act facilitates trades training

for the handicapped. The federal government reimburses the provinces for 50% of costs for programs that enable disabled people to support themselves fully or partially. The provinces provide training directly in community colleges and trade schools or purchase it from the private sector or voluntary agencies.

#### 4.3.4 Continuing education

Continuing or adult education is adapted to the needs of people not in the regular system. Out-of-school adults (15 and older) are able to pursue accreditation or to advance their personal interests. Continuing education is given by school boards, provincial departments of education, community colleges and universities. Programs are also conducted or sponsored by non-profit organizations, professional associations, government departments, business and industry. Instruction is not centred exclusively around institutions; it is also available by correspondence course, from travelling libraries, and over radio and television.

**History.** School boards and provincial departments of education have offered evening classes for adults since the turn of the century. Rapid development occurred after World War II.

At the postsecondary level, extension programs have been part of some universities for many years. Agricultural extension education was provided in Alberta and Saskatchewan; at St. Francis Xavier University in Nova Scotia, fishermen's co-operatives were organized. Besides these practical and vocational programs, other cultural and recreational services were developed by several urban universities in Central Canada. Some courses were for academic credit, others were not. Many were offered only on campus, others in external centres as well.

In 1983, an estimated 3.2 million adults took at least one adult education course. More than half of these students attended an educational institution, but employers and voluntary organizations also figured prominently as providers of continuing education.

**Courses.** Continuing education programs offer both credit and non-credit courses. Credit courses sponsored by school boards and departments of education may be applied toward a high school diploma. Credits in academic or vocational subjects can be acquired through evening classes or correspondence study. Postsecondary credit courses count toward a degree, diploma or certificate.

Non-credit courses for personal enrichment or leisure teach hobby skills (for example, arts

and crafts), social education (health and family life), recreation (sports and games), and subjects such as investment and driver education. Professional development and refresher courses are also available.

Courses may be formal or non-formal. Formal courses are structured units of study presented systematically. Non-formal courses are activities for which registration is not required, but where attendance for a scheduled period is necessary.

## 4.4 Federal involvement

### 4.4.1 Department of National Defence

The Department of National Defence instructs and trains members of the armed forces and is responsible for the schooling of children of service personnel in government quarters. The department also finances and operates three tuition-free colleges: the Royal Military College of Canada (RMC) in Kingston, Ontario; Royal Roads Military College (RRMC) in Victoria, British Columbia; and the Collège militaire royal (CMR) de Saint-Jean in Saint-Jean, Quebec. These institutions educate and train officer cadets and commissioned officers for careers in the Canadian forces.

RMC was founded in 1876 and accorded degree-granting status in 1959. The college accepts high school graduates and offers four-year degree programs in arts, engineering and science, and graduate studies in selected disciplines.

RRMC was established in 1942 as a naval cadet college. It became a Canadian services college in 1948 and was accorded degree-granting status in 1975. RRMC accepts high school graduates into arts, science and engineering programs and also offers degrees in physics and oceanography, physics and computer science, general science, and military and strategic studies. Engineering students transfer to RMC after completion of the second year.

CMR was established in 1952 and from 1969 to 1985 was affiliated with l'Université de Sherbrooke, which conferred degrees on CMR graduates. In 1985, the province of Quebec accorded degree-granting status to CMR. The college offers degree programs in arts, science, administration and computer science. After third year, officer cadets go to RMC for engineering or to RRMC for its specialized programs.

### 4.4.2 Indirect participation

The growth of education, both in size and importance, made it almost inevitable that the federal

government would play some role in its development, even though the constitution restricts direct participation. Many departments have educational functions, but they tend to be financial, such as grants for postsecondary and minority language education, funds for citizenship and language instruction for immigrants, and sponsorship of manpower training programs.

**Department of the Secretary of State.** In 1963, the education support branch of the Department of the Secretary of State was established to advise the Cabinet on postsecondary education. In 1967, it assumed responsibility for administering those parts of the Federal-Provincial Fiscal Arrangements Act related to postsecondary finance. By 1973, the branch's authority had been enlarged to include development, formulation, implementation and review of all federal policies and programs on education. This entailed communication with provincial governments, the academic community and national organizations, and co-operation with the Department of External Affairs to co-ordinate Canada's international efforts.

In addition to administering postsecondary adjustment payments, the branch took over the Canada Student Loans Program from the Department of Finance in 1977. Established in 1964 under the Canada Student Loans Act, the program guarantees loans to students whose resources are insufficient to provide for the cost of full- or part-time studies at the postsecondary level.

Applications for loans are assessed by provincial governments according to criteria agreed upon by both levels of government. Federal and provincial officials meet regularly to review student assistance issues so that all applicants are treated as equitably as possible.

The loans, negotiated by students at banks or other financial institutions designated by the Secretary of State, are guaranteed by the government of Canada. The government pays interest on the loans while borrowers are enrolled in full-time studies and for six months afterwards; there is no interest subsidy on loans to part-time students. Students make repayment arrangements with the financial institution. Under the Act, the federal government provides an alternative payment to Quebec, which operates a separate student assistance program. All other provinces complement the federal program with various student assistance programs of their own.

**Official languages in education.** The federal government provides financial assistance to the provinces and territories in support of the additional costs they incur in the maintenance and



development of minority language education and second official language instruction at the elementary, secondary and postsecondary levels. Responsibility for this function lies with the Official Languages in Education Directorate, established within the Department of the Secretary of State in 1970. Contributions under the program are made on the basis of federal-provincial and territorial agreements.

The objectives are to promote, encourage and assist the development and provision of education services in the minority language of each province or territory, and to provide opportunities for Canadians to learn their second official language.

From 1970-71 to 1982-83, contributions were provided through "formula payments" calculated on the basis of enrolment and provincial education costs; and a number of "non-formula" programs of support for specific provincial activities and initiatives. During this period, formula and non-formula contributions

by the federal government in support of bilingualism in education totalled \$1.8 billion.

Following an agreement in 1983-84 between the Secretary of State and the Council of Ministers of Education, Canada (CMEC), new three-year bilateral agreements were negotiated with the provinces and territories; in September 1985, an extension to the agreement protocol covering 1986-87 and 1987-88 was signed. Under the new agreements, the federal contribution toward the additional costs of minority official language and second official language education is provided under five broad expenditure categories: infrastructure support; program expansion and development; teacher training and development; student support; and capital. Federal contributions to the provinces and to private institutions under these categories for all levels of education amounted to \$188 million in 1984-85.

Federal expenditures on Official Languages in Education at all levels totalled \$194 million in 1983-84 and \$203 million in 1984-85.

#### Source

4.1 - 4.4 Prepared in Education, Culture and Tourism Division, Statistics Canada.



# TABLES

.. not available  
 ... not appropriate or not applicable  
 — nil or zero  
 -- too small to be expressed

e estimate  
 p preliminary  
 r revised  
 certain tables may not add due to rounding

## 4.1 Enrolment in elementary and secondary schools

Type of institution and year	Province or territory						
	Nfld.	PEI	NS	NB	Que.	Ont.	Man.
Public							
1981-82	145,185	26,184	181,758	149,417	1,099,302	1,802,487	200,619
1982-83	142,517	25,723	179,302	147,878	1,074,437	1,788,864	200,453
1983-84	147,603	25,480	177,240	146,045	1,066,133	1,773,478	199,743
1984-85	145,148	25,192	175,168	143,416	1,056,445	1,759,451	199,474
1985-86	142,332	24,996	172,614	141,332	1,041,439	1,769,074	199,013
Private							
1981-82	269	73	1,757	972	87,759	79,217	8,832
1982-83	258	72	1,791	975	88,386	81,453	9,576
1983-84	339	40	1,758	1,146	90,660	83,643	9,159
1984-85	347	49	1,822	1,208	93,400	86,791	9,222
1985-86	319	58	1,959	1,171	95,303	76,312	9,512
Federal <sup>1</sup>							
1981-82	—	37	873	780	3,130	7,405	9,557
1982-83	—	42	959	773	3,219	7,623	10,037
1983-84	—	36	890	732	3,211	7,562	10,205
1984-85	—	34	904	725	3,510	7,545	10,461
1985-86	—	36	914	742	3,698	7,880	10,315
Schools for the blind and the deaf							
1981-82	120	20	598	—	767	1,051	159
1982-83	111	20	584	—	753	956	169
1983-84	110	15	619	—	728	975	169
1984-85	111	20	615	—	680	896	168
1985-86	106	17	591	—	718	891	140
Total							
1981-82	145,574	26,314	184,986	151,169	1,190,958	1,890,160	219,167
1982-83	142,886	25,857	182,636	149,626	1,166,795	1,878,896	220,235
1983-84	148,052	25,571	180,507	147,923	1,160,732	1,865,658	219,276
1984-85	145,606	25,295	178,509	145,349	1,154,035	1,854,683	219,325
1985-86	142,757	25,107	176,078	143,245	1,141,158	1,854,157	218,980
	Sask.	Alta.	BC	YT	NWT	Canada <sup>1</sup>	
Public							
1981-82	202,094	442,176	503,371	5,121	12,581	4,770,295	
1982-83	201,308	448,496	500,336	4,524	12,760	4,726,598	
1983-84	201,130	448,835	497,312	4,548	12,901	4,700,448	
1984-85	201,892	446,475	491,264	4,697	13,224	4,661,846	
1985-86	202,560	448,339	486,777	4,554	13,444	4,646,474	
Private							
1981-82	2,470	8,598	27,936	—	—	217,883	
1982-83	2,519	10,377	28,280	—	—	223,687	
1983-84	2,636	11,361	29,118	—	—	229,860	
1984-85	2,789	12,462	30,326	—	—	238,416	
1985-86	2,943	13,089	33,553	—	—	234,219	
Federal <sup>1</sup>							
1981-82	6,785	4,200	2,891	—	—	38,890	
1982-83	7,048	4,784	3,193	—	—	40,744	
1983-84	7,986	4,902	3,079	—	—	41,606	
1984-85	8,408	5,206	3,243	—	—	43,022	
1985-86	8,330	5,575	3,421	—	—	44,408	

## 4.1 Enrolment in elementary and secondary schools (concluded)

Type of institution and year	Province or territory					Canada <sup>1</sup>
	Sask.	Alta.	BC	YT	NWT	
Schools for the blind and the deaf						
1981-82	111	187	160	—	—	3,173
1982-83	109	156	146	—	—	3,004
1983-84	112	138	140	—	—	3,006
1984-85	105	136	127	—	—	2,858
1985-86	96	123	130	—	—	2,812
Total						
1981-82	211,460	455,161	534,358	5,121	12,581	5,030,241
1982-83	210,984	463,813	531,955	4,524	12,760	4,994,033
1983-84	211,864	465,236	529,649	4,548	12,901	4,974,920
1984-85	213,194	464,279	524,960	4,697	13,224	4,946,142
1985-86	213,929	467,126	523,881	4,554	13,444	4,927,913

<sup>1</sup> Canada total also includes Department of National Defence schools overseas.

4.2 Full-time postsecondary enrolment in community colleges<sup>1</sup>

Province or territory	Year	Career programs	University transfer programs	Total
Newfoundland	1983-84	2,485	—	2,485
	1984-85	2,848	—	2,848
	1985-86	2,919	—	2,919
Prince Edward Island	1983-84	975	—	975
	1984-85	976	—	976
	1985-86	959	—	959
Nova Scotia	1983-84	2,913	—	2,913
	1984-85	2,959	—	2,959
	1985-86	2,950	—	2,950
New Brunswick	1983-84	2,290	—	2,290
	1984-85	2,280	—	2,280
	1985-86	2,462	—	2,462
Quebec	1983-84	79,250	80,651	159,901
	1984-85	80,223	82,571	162,794
	1985-86	79,187	84,830	164,017
Ontario	1983-84	95,735	—	95,735
	1984-85	96,402	—	96,402
	1985-86	94,517	—	94,517
Manitoba	1983-84	3,715	—	3,715
	1984-85	3,719	—	3,719
	1985-86	3,986	76	4,062
Saskatchewan	1983-84	2,755	40	2,795
	1984-85	2,885	42	2,927
	1985-86	3,012	39	3,051
Alberta	1983-84	19,354	3,268	22,622
	1984-85	20,298	3,553	23,851
	1985-86	21,010	3,298	24,308
British Columbia	1983-84	12,659	10,002	22,661
	1984-85	12,988	9,500	22,488
	1985-86	13,327	9,601	22,928
Yukon	1983-84	—	—	—
	1984-85	63	133	196
	1985-86	71	140	211
Northwest Territories	1983-84	84	—	84
	1984-85	112	8	120
	1985-86	130	3	133
Canada	1983-84	222,215	93,961	316,176
	1984-85	225,753	95,807	321,560
	1985-86	224,530	97,987	322,517

<sup>1</sup> Includes related institutions such as hospital schools, and agricultural, arts, and other specialized colleges.

### 4.3 Enrolment in universities

Province	Year	Full-time			Part-time		
		Under-graduate	Graduate	Total	Under-graduate	Graduate	Total
Newfoundland	1983-84	7,409	618	8,027	3,731	409	4,140
	1984-85	8,629	615	9,244	3,986	523	4,509
	1985-86	9,714	638	10,352	4,092	532	4,624
Prince Edward Island	1983-84	1,676	—	1,676	709	—	709
	1984-85	1,720	—	1,720	689	—	689
	1985-86	1,768	—	1,768	781	—	781
Nova Scotia	1983-84	20,649	1,809	22,458	5,899	1,129	7,028
	1984-85	21,242	1,848	23,090	5,372	1,157	6,529
	1985-86	21,665	1,920	23,585	5,668	1,163	6,831
New Brunswick	1983-84	13,460	695	14,155	4,315	449	4,764
	1984-85	13,835	689	14,524	3,878	379	4,257
	1985-86	14,239	679	14,918	4,106	415	4,521
Quebec	1983-84	87,552	16,312	103,864	95,576	13,222	108,798
	1984-85	91,028	17,628	108,656	98,206	13,575	111,781
	1985-86	95,971	17,313	113,284	100,706	14,859	115,565
Ontario	1983-84	162,366	20,753	183,119	85,878	11,965	97,843
	1984-85	164,852	20,906	185,758	84,178	11,963	96,141
	1985-86	164,007	21,009	185,016	84,882	11,963	96,845
Manitoba	1983-84	18,240	2,413	20,653	12,913	1,663	14,576
	1984-85	18,218	2,419	20,637	12,536	1,566	14,102
	1985-86	17,960	2,389	20,349	12,518	1,591	14,109
Saskatchewan	1983-84	18,098	1,034	19,132	8,168	677	8,845
	1984-85	18,343	1,111	19,454	8,040	640	8,680
	1985-86	18,400	1,060	19,460	7,869	780	8,649
Alberta	1983-84	35,670	4,540	40,210	13,836	2,202	16,038
	1984-85	36,797	4,831	41,628	13,525	2,218	15,743
	1985-86	37,875	4,881	42,756	15,189	2,148	17,337
British Columbia	1983-84	32,231	4,983	37,214	13,779	2,189	15,968
	1984-85	31,642	4,839	36,481	13,279	2,116	15,395
	1985-86	30,835	4,964	35,799	13,879	1,848	15,727
Total	1983-84	397,351	53,157	450,508	244,804	33,905	278,709
	1984-85	406,306	54,886	461,192	243,689	34,137	277,826
	1985-86	412,434	54,853	467,287	249,690	35,299	284,989

### 4.4 Graduate degrees awarded by Canadian universities

Degree and field of study	Region and calendar year					
	Atlantic provinces		Quebec		Ontario	
	1984	1985	1984	1985	1984	1985
Master						
Education	396	374	514	572	1,122	1,151
Fine and applied arts	5	5	99	105	115	88
Humanities	101	79	533	611	1,017	1,013
Social sciences	309	290	1,610	1,714	2,737	2,805
Agriculture and biological sciences	45	59	124	121	256	253
Engineering and applied sciences	150	106	387	397	691	673
Health professions	38	29	219	227	306	339
Mathematics and physical sciences	67	53	236	280	438	461
Unclassified	—	—	4	2	17	9
Total	1,111	995	3,726	4,029	6,699	6,792
Doctorate						
Education	6	6	39	43	81	90
Fine and applied arts	—	—	2	4	9	7
Humanities	10	5	69	73	155	132
Social sciences	6	10	101	114	211	199
Agriculture and biological sciences	18	8	40	41	89	112
Engineering and applied sciences	12	12	44	68	89	136
Health professions	13	9	53	54	62	60
Mathematics and physical sciences	24	24	72	96	173	174
Unclassified	—	—	—	5	4	3
Total	89	74	420	498	873	913

## 4.4 Graduate degrees awarded by Canadian universities (concluded)

Degree and field of study	Region and calendar year						
	Western provinces		Canada				
	1984	1985	1984	1985			F %
				M %	F %	M %	
Master							
Education	762	822	2,794	44	56	2,919	58
Fine and applied arts	101	94	320	49	51	292	57
Humanities	313	318	1,964	44	56	2,021	56
Social sciences	962	1,067	5,618	62	38	5,876	39
Agriculture and biological sciences	243	269	668	61	39	702	38
Engineering and applied sciences	349	435	1,577	91	9	1,611	10
Health professions	94	130	657	38	62	725	61
Mathematics and physical sciences	200	235	941	81	19	1,029	22
Unclassified	12	8	33	73	27	19	26
Total	3,036	3,378	14,572	59	41	15,194	42
Doctorate							
Education	83	75	209	53	47	214	38
Fine and applied arts	2	1	13	38	62	12	42
Humanities	29	42	263	61	39	252	42
Social sciences	92	95	410	68	32	418	33
Agriculture and biological sciences	90	86	237	75	25	247	25
Engineering and applied sciences	43	61	188	95	5	277	7
Health professions	48	53	176	68	32	176	26
Mathematics and physical sciences	104	92	373	89	11	386	18
Unclassified	5	10	9	67	33	18	33
Total	496	515	1,878	73	27	2,000	26

## 4.5 Diplomas and certificates awarded by Canadian universities

Level and field of study	Region and calendar year					
	Atlantic provinces		Quebec		Ontario	
	1984	1985	1984	1985	1984	1985
Undergraduate						
Education	101	80	4,598	4,593	220	162
Fine and applied arts	31	41	256	179	102	51
Humanities	20	16	1,075	1,381	320	238
Social sciences	192	254	4,432	4,425	833	912
Agriculture and biological sciences	3	6	41	41	9	6
Engineering and applied sciences	270	301	91	127	434	421
Health professions	111	114	289	426	176	132
Mathematics and physical sciences	55	31	317	385	117	45
Unclassified	55	26	137	192	—	—
Total	838	869	11,236	11,749	2,211	1,967
Graduate						
Education	1	—	59	61	65	61
Fine and applied arts	—	—	21	29	2	11
Humanities	—	—	4	4	32	30
Social sciences	1	—	587	454	126	90
Agriculture and biological sciences	—	—	20	15	6	8
Engineering and applied sciences	—	—	7	9	10	28
Health professions	—	—	230	240	62	68
Mathematics and physical sciences	—	—	17	17	—	—
Unclassified	—	—	—	—	1	—
Total	2	—	945	829	304	296



#### 4.5 Diplomas and certificates awarded by Canadian universities (concluded)

Level and field of study	Region and calendar year							
	Western provinces		Canada					
	1984	1985	1984		1985			
				M %	F %		M %	F %
Undergraduate								
Education	517	494	5,436	28	72	5,329	27	73
Fine and applied arts	41	15	430	24	76	286	25	75
Humanities	100	106	1,515	33	67	1,741	33	67
Social sciences	255	445	5,712	51	49	6,036	50	50
Agriculture and biological sciences	116	104	169	73	27	157	73	27
Engineering and applied sciences	6	—	801	93	7	849	91	9
Health professions	76	89	652	8	92	761	10	90
Mathematics and physical sciences	24	94	513	73	27	555	67	33
Unclassified	1	37	193	44	56	255	35	65
Total	1,136	1,384	15,421	41	59	15,969	41	59
Graduate								
Education	273	309	398	35	65	431	35	65
Fine and applied arts	—	—	23	35	65	40	30	70
Humanities	11	15	47	53	47	49	31	69
Social sciences	8	13	722	61	39	557	66	34
Agriculture and biological sciences	8	3	34	59	41	26	62	38
Engineering and applied sciences	6	15	23	96	4	52	98	2
Health professions	15	4	307	52	48	312	57	43
Mathematics and physical sciences	21	3	38	84	16	20	80	20
Unclassified	30	—	31	45	55	—	—	—
Total	372	362	1,623	53	47	1,487	54	46

#### 4.6 Bachelor and first professional degrees awarded by Canadian universities

Specialization	Province and calendar year											
	Nfld.		PEI		NS		NB		Que.		Ont.	
	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985
Agriculture and biological sciences												
Agriculture	—	—	—	—	—	36	—	—	225	213	251	203
Biology	47	56	17	17	242	297	82	78	571	482	823	911
Household science	—	2	9	8	84	76	6	7	95	110	346	350
Veterinary medicine	—	—	—	—	—	34	—	—	67	70	113	121
Zoology	5	4	—	—	5	6	—	—	—	1	73	60
Other	14	29	—	—	3	5	2	12	175	181	186	204
Sub-total, agriculture and biological sciences	66	91	26	25	334	420	90	97	1,133	1,057	1,792	1,849
Education												
Education	599	664	49	37	495	382	490	471	3,105	3,075	4,631	4,667
Physical education	32	42	—	—	67	83	74	53	483	452	732	799
Sub-total, education	631	706	49	37	562	465	564	524	3,588	3,527	5,363	5,466
Engineering and applied sciences												
Architecture	—	—	—	—	30	46	—	—	178	180	225	240
Engineering	79	71	—	—	283	249	235	236	1,866	1,924	3,211	3,317
Forestry	—	—	—	—	—	—	64	71	82	48	108	109
Other	—	—	—	—	—	—	—	—	24	20	62	74
Sub-total, engineering and applied sciences	79	71	—	—	313	295	299	307	2,150	2,172	3,606	3,740
Fine and applied arts	18	11	6	4	149	141	52	52	887	943	1,078	1,130

## 4.6 Bachelor and first professional degrees awarded by Canadian universities (continued)

Specialization	Province and calendar year													
	Nfld.		PEI		NS		NB		Que.		Ont.			
	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985		
Health professions	—	—	—	—	21	32	—	—	138	145	173	174		
Dental studies and research	101	111	—	—	94	90	—	—	591	610	632	669		
Medical studies and research	59	57	—	—	108	108	91	157	322	309	587	604		
Nursing	—	—	—	—	51	57	—	—	180	196	153	161		
Pharmacy	—	—	—	—	29	54	—	—	294	289	292	301		
Rehabilitation medicine	—	—	—	—	—	—	—	—	177	172	85	107		
Other	—	—	—	—	—	—	—	—	—	—	—	—		
Sub-total, health professions	160	168	—	—	303	341	91	157	1,702	1,721	1,922	2,016		
Humanities	—	—	—	—	—	—	—	—	—	—	—	—		
History	37	39	20	15	102	123	71	67	313	322	767	872		
Languages	124	137	13	15	231	246	108	125	874	814	1,885	2,139		
Other	27	27	1	—	123	166	21	29	1,009	1,117	1,521	1,493		
Sub-total, humanities	188	203	34	30	456	535	200	221	2,196	2,253	4,173	4,504		
Mathematics and physical sciences	—	—	—	—	—	—	—	—	—	—	—	—		
Chemistry	8	13	3	5	53	53	18	21	164	182	303	369		
Geology	28	44	—	—	92	97	29	33	118	114	323	328		
Mathematics	29	51	3	4	77	99	38	33	278	348	1,048	1,219		
Physics	13	9	2	6	24	23	21	11	144	130	179	238		
Other	59	65	—	—	133	144	100	104	566	714	1,120	1,294		
Sub-total, mathematics and physical sciences	137	182	8	15	379	416	206	202	1,270	1,488	2,973	3,448		
Social sciences	—	—	—	—	—	—	—	—	—	—	—	—		
Commerce	133	119	104	76	696	731	358	357	4,257	4,328	3,930	3,808		
Economics	34	44	3	14	52	88	80	82	529	581	2,115	2,264		
Geography	43	40	—	—	13	15	12	9	225	260	832	870		
Law	—	—	—	—	147	149	78	78	803	827	1,348	1,382		
Political sciences	28	41	6	2	94	94	36	34	453	537	957	1,106		
Psychology	55	66	37	39	237	277	116	136	736	782	2,229	2,504		
Social work	46	37	—	—	48	62	62	83	414	457	392	425		
Sociology	43	39	13	15	132	186	37	57	280	266	1,237	1,247		
Other	8	23	8	6	98	127	21	11	474	468	1,055	959		
Sub-total, social sciences	390	409	171	152	1,517	1,729	800	847	8,171	8,506	14,095	14,565		
No specialization	—	—	2	1	214	234	63	73	588	516	6,112	6,399		
Total, degrees	1,669	1,841	296	264	4,227	4,576	2,365	2,480	21,685	22,183	41,114	43,117		
	Man.		Sask.		Alta.		BC		Canada					
	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985		
											M	F		
											%	%		
Agriculture and biological sciences	95	87	79	88	73	94	59	55	782	57	43	776	58	42
Agriculture	44	50	78	90	135	177	251	271	2,290	51	49	2,429	50	50
Biology	75	81	51	34	80	74	47	40	793	4	96	782	3	97
Household science	—	—	67	64	—	—	—	—	247	48	52	255	48	52
Veterinary medicine	26	35	—	—	56	73	54	60	219	56	44	239	55	45
Zoology	31	36	13	13	43	35	58	64	525	57	43	579	51	49
Other	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sub-total, agriculture and biological sciences	271	289	288	289	387	453	469	490	4,856	45	55	5,060	44	56
Education	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Education	707	739	974	915	1,693	1,728	748	802	13,491	27	73	13,480	26	74
Physical education	70	63	54	94	204	223	116	124	1,832	48	52	1,933	47	53
Sub-total, education	777	802	1,028	1,009	1,897	1,951	864	926	15,323	30	70	15,413	29	71
Engineering and applied sciences	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architecture	—	—	—	—	—	—	42	45	475	70	30	511	73	27
Engineering	230	256	197	251	623	633	420	451	7,144	92	8	7,388	95	5
Forestry	—	—	—	—	23	37	87	82	364	80	20	347	80	20
Other	—	—	—	—	—	—	9	17	95	49	51	111	51	49
Sub-total, engineering and applied sciences	230	256	197	251	646	670	558	595	8,078	89	11	8,357	88	12

#### 4.6 Bachelor and first professional degrees awarded by Canadian universities (concluded)

	Province and calendar year													
	Man.		Sask.		Alta.		BC		Canada					
	1984	1985	1984	1985	1984	1985	1984	1985	1984		1985			
										M %	F %		M %	F %
Fine and applied arts	176	168	73	95	178	209	269	283	2,886	35	65	3,036	36	64
Health professions														
Dental studies and research	25	25	22	21	70	69	38	39	487	77	23	505	77	23
Medical studies and research	117	113	57	58	271	275	138	146	2,081	62	38	2,138	59	41
Nursing	85	74	78	92	247	277	169	205	1,746	3	97	1,883	3	97
Pharmacy	47	45	50	49	76	61	97	65	654	37	63	634	36	64
Rehabilitation medicine	49	43	24	31	104	110	65	38	857	9	91	866	10	90
Other	—	—	—	—	1	—	—	—	183	54	46	213	48	52
Sub-total, health professions	323	300	231	251	769	792	507	493	6,008	36	64	6,239	34	66
Humanities														
History	146	98	76	80	38	104	172	189	1,742	55	45	1,909	56	44
Languages	135	181	137	133	85	253	452	468	4,044	24	76	4,511	25	75
Other	142	147	115	164	57	90	177	209	3,193	47	53	3,442	47	53
Sub-total, humanities	423	426	328	377	180	447	801	866	8,979	38	62	9,862	39	61
Mathematics and physical sciences														
Chemistry	21	29	22	20	33	43	58	64	683	69	31	799	64	36
Geology	46	42	51	69	160	175	61	68	908	80	20	970	79	21
Mathematics	62	117	36	30	100	121	60	42	1,731	64	36	2,064	62	38
Physics	17	18	10	12	36	56	74	72	520	88	12	575	85	15
Other	184	229	125	144	218	229	235	237	2,740	74	26	3,160	73	27
Sub-total, mathematics and physical sciences	330	435	244	275	547	624	488	483	6,582	73	27	7,568	71	29
Social sciences														
Commerce	413	445	409	411	845	891	840	781	11,985	62	38	11,947	59	41
Economics	229	286	89	106	104	252	198	250	3,433	69	31	3,967	66	34
Geography	102	130	39	42	75	119	202	201	1,543	62	38	1,686	60	40
Law	89	84	97	99	215	221	309	305	3,086	58	42	3,145	55	45
Political sciences	100	124	44	78	84	151	199	232	2,001	61	39	2,399	61	39
Psychology	286	306	139	143	175	334	381	412	4,391	26	74	4,999	27	73
Social work	105	88	56	73	136	168	106	115	1,365	20	80	1,508	21	79
Sociology	114	143	92	95	27	161	54	85	2,029	27	73	2,294	28	72
Other	143	184	38	48	25	76	251	307	2,121	43	57	2,209	43	57
Sub-total, social sciences	1,581	1,790	1,003	1,095	1,686	2,373	2,540	2,688	31,954	52	48	34,154	50	50
No specialization	245	273	20	9	758	133	148	147	8,150	42	58	7,785	42	58
Total, degrees	4,356	4,739	3,412	3,651	7,048	7,652	6,644	6,971	92,816	47	53	97,474	47	53

#### 4.7 Direct sources of funds for education at all levels (million dollars)

Year	Direct sources of funds					
	Government			Fees	Other sources	Total
	Federal <sup>1</sup>	Provincial <sup>1</sup>	Municipal			
1978-79	1,615.4	11,795.9	3,482.5	698.9	574.6	18,167.3
1979-80	1,651.3	13,131.5	3,695.2	757.8	739.1	19,974.9
1980-81	1,891.0	14,708.6	3,850.8	868.6	869.6	22,188.6
1981-82	2,153.0	16,962.1	4,290.9	1,016.8	937.1	25,359.9
1982-83	2,484.8	19,343.5	4,316.4	1,187.3	955.4	28,287.4
1983-84	2,753.2	20,752.6	4,717.7	1,312.8	996.1	30,532.4

<sup>1</sup> In addition to the direct funding reported here, the federal government also provides indirect support in respect of postsecondary education to provinces and territories under the Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act, 1977 and under the Official Languages in Education Program. For further information on the financing of these programs, please consult *Financial Statistics of Education* (Statistics Canada Catalogue 81-208).

## 4.8 Expenditures on education by level (million dollars)

Year and level of study	Province or region						
	Nfld.	PEI	NS	NB	Que.	Ont.	Man.
1982-83							
Elementary and secondary	392.4	74.5	564.3	487.1	5,120.1	6,323.2	784.6
Postsecondary							
Non-university	17.5	6.3	23.2	18.3	945.8	593.4	29.7
University	120.5	18.0	213.6	144.1	1,454.2	2,026.7	241.0
Vocational and occupational training	54.0	14.2	70.2	54.2	342.7	478.5	72.2
Total	584.4	113.0	871.3	703.7	7,862.8	9,421.8	1,127.5
1983-84 <sup>P</sup>							
Elementary and secondary	504.0	78.9	615.6	532.4	5,684.7	6,914.2	849.4
Postsecondary							
Non-university	18.5	6.7	25.7	27.4	1,031.7	670.4	31.9
University	123.7	18.9	248.4	149.5	1,486.1	2,192.9	264.6
Vocational and occupational training	68.3	15.0	87.9	65.2	375.6	526.8	80.5
Total	714.5	119.5	977.6	774.5	8,578.1	10,304.3	1,226.4
	Sask.	Alta.	BC	YT	NWT	Overseas and undistributed	Total
1982-83							
Elementary and secondary	773.3	1,816.4	2,061.6	30.9	82.5	21.5	18,532.4
Postsecondary							
Non-university	45.9	234.7	267.1	0.9	0.6	4.8	2,188.2
University	220.5	637.7	569.2	0.5	0.5	57.6	5,704.1
Vocational and occupational training	89.3	226.4	240.5	7.5	23.6	189.4	1,862.7
Total	1,129.0	2,915.2	3,138.4	39.8	107.2	273.3	28,287.4
1983-84 <sup>P</sup>							
Elementary and secondary	823.5	1,920.0	1,996.2	29.8	81.1	19.8	20,049.6
Postsecondary							
Non-university	52.9	248.5	273.4	1.8	4.4	11.5	2,404.8
University	237.3	670.5	569.6	0.4	0.7	75.1	6,037.7
Vocational and occupational training	91.5	268.3	230.4	8.6	23.9	198.3	2,040.3
Total	1,205.2	3,107.3	3,069.6	40.6	110.1	304.7	30,532.4

4.9 Expenditures<sup>1</sup> on education by level and by direct source of funds (million dollars)

Year, level and direct source of funds	Province or region					
	Nfld.	PEI	NS	NB	Que.	Ont.
1982-83						
Level						
Elementary and secondary	392.4	74.5	564.3	487.1	5,120.1	6,323.2
Postsecondary	138.0	24.3	236.8	162.4	2,400.0	2,620.1
Vocational and occupational training	54.0	14.2	70.2	54.2	342.7	478.5
Total	584.4	113.0	871.3	703.7	7,862.8	9,421.8
Direct source of funds						
Federal government <sup>2</sup>	46.7	11.9	87.2	60.5	484.6	723.5
Provincial governments <sup>2</sup>	488.0	95.0	654.0	613.1	6,749.8	5,130.2
Municipal governments	14.8	—	80.4	—	181.3	2,683.6
Fees and other sources	34.9	6.1	49.7	30.1	447.1	884.5
Total	584.4	113.0	871.3	703.7	7,862.8	9,421.8



**4.9 Expenditures<sup>1</sup> on education by level and by direct source of funds (million dollars) (continued)**

Year, level and direct source of funds		Province or region					
		Nfld.	PEI	NS	NB	Que.	Ont.
Total expenditure related to							
Personal income	%	11.9	10.3	10.1	10.8	10.1	7.8
Gross National Product (Canada) and Gross Domestic Product (provinces)	%	11.8	10.9	10.4	11.0	9.4	6.9
Population	per capita \$	1,028	921	1,023	1,007	1,213	1,081
Labour force	per capita \$	2,793	2,169	2,415	2,489	2,620	2,087
1983-84 <sup>P</sup>							
Level							
Elementary and secondary		504.0	78.9	615.6	532.4	5,684.7	6,914.2
Postsecondary		142.2	25.6	274.1	176.9	2,517.8	2,863.3
Vocational and occupational training		68.3	15.0	87.9	65.2	375.6	526.8
Total		714.5	119.5	977.6	774.5	8,578.1	10,304.3
Direct source of funds							
Federal government <sup>2</sup>		50.7	13.0	96.4	68.1	529.0	809.7
Provincial governments <sup>2</sup>		609.8	99.3	715.7	665.9	7,318.0	5,553.7
Municipal governments		17.0	—	85.6	—	186.7	2,982.7
Fees and other sources		37.0	7.2	79.9	40.5	544.4	958.2
Total		714.5	119.5	977.6	774.5	8,578.1	10,304.3
Total expenditure related to							
Personal income	%	13.5	9.6	10.5	10.9	10.5	7.9
Gross National Product (Canada) and Gross Domestic Product (provinces)	%	13.1	10.0	10.4	10.5	9.5	6.8
Population	per capita \$	1,240	961	1,135	1,094	1,318	1,168
Labour force	per capita \$	3,336	2,185	2,651	2,672	2,796	2,257
1982-83							
Level							
Elementary and secondary		784.6	773.3	1,816.4	2,061.6	113.4	18,532.4
Postsecondary		270.7	266.4	872.4	836.3	2.5	7,892.3
Vocational and occupational training		72.2	89.3	226.4	240.5	31.1	1,862.7
Total		1,127.5	1,129.0	2,915.2	3,138.4	147.0	28,287.4
Direct source of funds							
Federal government <sup>2</sup>		153.5	162.8	214.2	281.5	12.5	2,484.8
Provincial governments <sup>2</sup>		602.1	625.9	1,841.0	2,415.8	128.6	19,343.5
Municipal governments		287.3	273.9	620.7	169.7	4.7	4,316.4
Fees and other sources		84.6	66.4	239.3	271.4	1.2	2,142.7
Total		1,127.5	1,129.0	2,915.2	3,138.4	147.0	28,287.4
Total expenditure related to							
Personal income	%	9.0	9.2	8.8	8.1	15.7	8.9
Gross National Product (Canada) and Gross Domestic Product (provinces)	%	8.1	7.3	5.5	7.1	10.4	7.9
Population	per capita \$	1,090	1,153	1,257	1,124	2,073	1,148
Labour force	per capita \$	2,273	2,485	2,372	2,287	..	2,362
1983-84 <sup>P</sup>							
Level							
Elementary and secondary		849.4	823.5	1,920.0	1,996.2	110.9	20,049.6
Postsecondary		296.5	290.2	919.0	843.0	7.3	8,442.5
Vocational and occupational training		80.5	91.5	268.3	230.4	32.5	2,040.3
Total		1,226.4	1,205.2	3,107.3	3,069.6	150.7	30,532.4
Direct source of funds							
Federal government <sup>2</sup>		167.5	168.2	243.0	316.9	16.7	2,753.2
Provincial governments <sup>2</sup>		659.9	656.9	1,986.2	2,360.0	127.2	20,752.6
Municipal governments		301.5	301.1	675.8	161.7	5.6	4,717.7
Fees and other sources		97.5	79.0	202.3	231.0	1.2	2,308.9
Total		1,226.4	1,205.2	3,107.3	3,069.6	150.7	30,532.4

**4.9 Expenditures<sup>1</sup> on education by level and by direct source of funds (million dollars) (concluded)**

Year, level and direct source of funds		Province or region						Canada
		Man.	Sask.	Alta.	BC	YT and NWT	Overseas and undistributed	
Total expenditure related to	%	9.3	9.6	9.0	7.6	14.9	...	9.1
Personal income								
Gross National Product (Canada)								
and Gross Domestic Product								
(provinces)	%	8.1	7.4	5.5	6.5	10.2	...	7.8
Population	per capita \$	1,170	1,213	1,324	1,088	2,126	...	1,227
Labour force	per capita \$	2,413	2,561	2,488	2,211	..	...	2,508

<sup>1</sup> Includes operating, capital, student aid and all departmental expenditures.<sup>2</sup> See footnote 1, Table 4.7.**4.10 Expenditures on elementary-secondary education (million dollars)**

Year, type of expenditure and direct source of funds	Province or region					
	Nfld.	PEI	NS	NB	Que.	Ont.
1982-83						
Type of expenditure						
School boards						
Teachers' salaries, including fringe benefits	236.0	41.2	323.7	222.3	2,491.5	3,504.1
Other operating expenses	68.9	18.6	125.2	93.7	1,499.6	1,687.1
Capital and debt charges	48.6	6.1	44.1	3.0	273.7	434.5
Total	353.5	65.9	493.0	319.0	4,264.8	5,625.7
Governmental expenditures on behalf of public schools	33.0	6.8	52.3	147.8	506.3	375.7
Total	386.5	72.7	545.3	466.8	4,771.1	6,001.4
Indian and Inuit schools	—	0.3	4.8	4.2	26.9	45.3
Special education	1	1	1	13.8	19.6	54.4
Private schools	1	1	1	2.3	302.5	222.1
Total	392.4	74.5	564.3	487.1	5,120.1	6,323.2
Direct source of funds						
Federal government <sup>2</sup>	—	1.4	10.5	9.1	67.8	88.1
Provincial governments <sup>2</sup>	365.2	72.1	470.5	473.9	4,689.5	3,236.7
Municipal governments	14.8	—	80.4	—	181.2	2,683.2
Fees and other sources	12.4	1.0	2.9	4.1	181.6	315.2
Total	392.4	74.5	564.3	487.1	5,120.1	6,323.2
1983-84 <sup>P</sup>						
Type of expenditure						
School boards						
Teachers' salaries, including fringe benefits	246.8	45.4	364.9	244.2	2,465.3	3,861.5
Other operating expenses	76.8	20.1	134.2	102.8	1,544.6	1,826.0
Capital and debt charges	48.5	7.0	49.2	3.6	363.6	463.4
Total	372.1	72.5	548.3	350.6	4,373.5	6,150.9
Governmental expenditures on behalf of public schools	124.2	4.8	48.1	159.1	931.1	410.7
Total	496.3	77.3	596.4	509.7	5,304.6	6,561.6
Indian and Inuit schools	—	0.6	5.4	5.8	35.3	49.3
Special education	1	1	1	14.8	15.2	56.1
Private schools	1	1	1	2.1	329.6	247.2
Total	504.0	78.9	615.6	532.4	5,684.7	6,914.2

**4.10 Expenditures on elementary-secondary education (million dollars) (concluded)**

Year, type of expenditure and direct source of funds	Province or region					
	Nfld.	PEI	NS	NB	Que.	Ont.
Direct source of funds						
Federal government <sup>2</sup>	—	1.6	11.9	10.8	78.9	96.1
Provincial governments <sup>2</sup>	470.2	75.6	502.1	517.4	5,160.0	3,474.6
Municipal governments	17.0	—	85.5	—	185.5	2,982.3
Fees and other sources	16.8	1.7	16.1	4.2	260.3	361.2
<b>Total</b>	<b>504.0</b>	<b>78.9</b>	<b>615.6</b>	<b>532.4</b>	<b>5,684.7</b>	<b>6,914.2</b>
	Man.	Sask.	Alta.	BC	YT and NWT	Overseas and undistributed
<b>1982-83</b>						
Type of expenditure						
School boards						
Teachers' salaries, including fringe benefits	381.6	357.5	955.8	1,063.0	48.5	9,625.2
Other operating expenses	195.5	200.4	466.5	523.7	23.7	4,902.9
Capital and debt charges	48.5	42.6	165.6	169.9	24.5	1,261.1
<b>Total</b>	<b>625.6</b>	<b>600.5</b>	<b>1,587.9</b>	<b>1,756.6</b>	<b>96.7</b>	<b>15,789.2</b>
Governmental expenditures on behalf of public schools	73.2	96.0	140.6	198.9	14.3	20.5
<b>Total</b>	<b>698.8</b>	<b>696.5</b>	<b>1,728.5</b>	<b>1,955.5</b>	<b>111.0</b>	<b>17,454.6</b>
Indian and Inuit schools	51.3	59.2	32.5	27.8	2.4	1.0
Special education	10.7	5.1	24.8	8.6	—	—
Private schools	23.8	12.5	30.6	69.7	—	—
<b>Total</b>	<b>784.6</b>	<b>773.3</b>	<b>1,816.4</b>	<b>2,061.6</b>	<b>113.4</b>	<b>21.5</b>
<b>18,532.4</b>						
Direct source of funds						
Federal government <sup>2</sup>	70.2	75.8	67.3	60.4	2.5	21.5
Provincial governments <sup>2</sup>	388.8	407.6	1,046.3	1,760.7	105.3	—
Municipal governments	287.2	274.0	620.5	169.6	4.6	—
Fees and other sources	38.4	15.9	82.3	70.9	1.0	—
<b>Total</b>	<b>784.6</b>	<b>773.3</b>	<b>1,816.4</b>	<b>2,061.6</b>	<b>113.4</b>	<b>21.5</b>
<b>18,532.4</b>						
<b>1983-84<sup>P</sup></b>						
Type of expenditure						
School boards						
Teachers' salaries, including fringe benefits	419.9	400.1	1,028.2	1,076.8	50.0	—
Other operating expenses	215.7	223.2	480.3	513.4	24.2	—
Capital and debt charges	59.6	50.9	197.4	175.1	23.6	—
<b>Total</b>	<b>695.2</b>	<b>674.2</b>	<b>1,705.9</b>	<b>1,765.3</b>	<b>97.8</b>	<b>—</b>
<b>16,806.3</b>						
Governmental expenditures on behalf of public schools	63.7	68.0	129.1	119.2	11.8	19.8
<b>Total</b>	<b>758.9</b>	<b>742.2</b>	<b>1,835.0</b>	<b>1,884.5</b>	<b>109.6</b>	<b>19.8</b>
<b>18,895.9</b>						
Indian and Inuit schools	56.1	61.3	31.7	25.3	1.3	—
Special education	10.1	5.4	23.3	8.1	—	—
Private schools	24.3	14.6	30.0	78.3	—	—
<b>Total</b>	<b>849.4</b>	<b>823.5</b>	<b>1,920.0</b>	<b>1,996.2</b>	<b>110.9</b>	<b>19.8</b>
<b>20,049.6</b>						
Direct source of funds						
Federal government <sup>2</sup>	78.5	81.8	70.2	62.5	1.5	19.8
Provincial governments <sup>2</sup>	424.0	418.9	1,108.6	1,695.1	103.1	—
Municipal governments	301.4	301.2	675.7	161.6	5.6	—
Fees and other sources	45.5	21.6	65.5	77.0	0.7	—
<b>Total</b>	<b>849.4</b>	<b>823.5</b>	<b>1,920.0</b>	<b>1,996.2</b>	<b>110.9</b>	<b>19.8</b>
<b>20,049.6</b>						

<sup>1</sup> Confidential.<sup>2</sup> See footnote 1, Table 4.7.

## 4.11 Expenditures on vocational and occupational training (million dollars)

Year and type of training	Province or region						
	Nfld.	PEI	NS	NB	Que.	Ont.	
1982-83							
Manpower training <sup>1</sup>							
Federal government	32.9	8.6	38.0	34.4	238.6	296.8	
Provincial and municipal governments	12.4	4.1	23.6	14.0	59.6	80.9	
Fees and other sources	1.5	1.0	—	2.6	15.1	22.3	
Total	46.8	13.7	61.6	51.0	313.3	400.0	
Other <sup>2</sup>	3	3	3	3	21.9	63.8	
Private	3	3	3	3	7.5	14.7	
Total	54.0	14.2	70.2	54.2	342.7	478.5	
1983-84 <sup>P</sup>							
Manpower training <sup>1</sup>							
Federal government	35.7	9.1	37.9	38.1	248.9	327.9	
Provincial and municipal governments	22.1	3.7	38.6	22.2	87.5	91.0	
Fees and other sources	1.8	1.5	—	2.7	15.6	23.0	
Total	59.6	14.3	76.5	63.0	352.0	441.9	
Other <sup>2</sup>	3	3	3	3	15.3	68.7	
Private	3	3	3	3	8.3	16.2	
Total	68.3	15.0	87.9	65.2	375.6	526.8	
	Man.	Sask.	Alta.	BC	YT and NWT	Overseas and undistributed	Canada
1982-83							
Manpower training <sup>1</sup>							
Federal government	46.3	34.2	90.8	108.8	9.5	8.6	947.5
Provincial and municipal governments	14.1	14.8	99.2	66.2	11.5	—	400.4
Fees and other sources	2.2	8.2	17.1	36.9	—	—	106.9
Total	62.6	57.2	207.1	211.9	21.0	8.6	1,454.8
Other <sup>2</sup>	7.8	30.0	17.3	26.3	10.1	153.5	348.4
Private	1.8	2.1	2.0	2.3	—	27.3	59.5
Total	72.2	89.3	226.4	240.5	31.1	189.4	1,862.7
1983-84 <sup>P</sup>							
Manpower training <sup>1</sup>							
Federal government	46.9	39.5	99.6	129.5	14.1	14.6	1,041.8
Provincial and municipal governments	17.0	23.2	142.3	64.2	13.6	—	525.4
Fees and other sources	2.2	8.7	13.8	24.2	0.4	—	93.9
Total	66.1	71.4	255.7	217.9	28.1	14.6	1,661.1
Other <sup>2</sup>	12.4	17.8	10.4	10.1	4.4	153.0	312.7
Private	2.0	2.3	2.2	2.4	—	30.7	66.5
Total	80.5	91.5	268.3	230.4	32.5	198.3	2,040.3

<sup>1</sup> Includes training courses purchased by the federal government, capital expenditures, grants for training in industry and allowances to trainees.

<sup>2</sup> Includes nursing assistants, training, trades training in reform schools and in penitentiaries and other training programs within federal and provincial departments, as well as private trades schools.

<sup>3</sup> Confidential.



## 4.12 Expenditures on postsecondary education (million dollars)

Year and type of expenditure	Province or region						
	Nfld.	PEI	NS	NB	Que.	Ont.	
1982-83							
Type of expenditure							
Operating							
Community colleges	13.8	4.7	18.6	14.7	717.9	442.2	
Universities	100.0	12.5	201.7	116.2	1,223.0	1,751.3	
Total	113.8	17.2	220.3	130.9	1,940.9	2,193.5	
Capital	4.4	0.7	5.9	4.5	154.1	118.5	
Student aid							
Scholarships and awards	12.4	1.8	12.1	13.4	160.8	147.4	
Cost of loans (excluding loans)	4.2	1.1	7.3	6.1	25.8	57.4	
Total	134.8	20.8	245.6	154.9	2,281.6	2,516.8	
Other direct departmental expenditures	3.2	3.5	-8.8	7.5	118.4	103.3	
Total	138.0	24.3	236.8	162.4	2,400.0	2,620.1	
Direct source of funds							
Federal government <sup>1</sup>	12.5	1.9	36.8	16.0	172.3	306.6	
Provincial governments <sup>1</sup>	104.5	18.4	154.5	123.4	1,984.6	1,780.9	
Municipal governments	—	—	—	—	—	0.4	
Fees and other sources	21.0	4.0	45.5	23.0	243.1	532.2	
Total	138.0	24.3	236.8	162.4	2,400.0	2,620.1	
1983-84 <sup>P</sup>							
Type of expenditure							
Operating							
Community colleges	15.4	4.4	20.3	21.2	766.2	516.9	
Universities	103.5	13.1	229.1	126.6	1,263.6	1,911.0	
Total	118.9	17.5	249.4	147.8	2,029.8	2,427.9	
Capital	5.7	1.4	5.6	10.2	167.4	152.5	
Student aid							
Scholarships and awards	10.2	1.4	13.4	11.8	186.0	159.9	
Cost of loans (excluding loans)	4.3	1.3	9.5	6.8	36.6	70.2	
Total	139.1	21.6	277.9	176.6	2,419.8	2,810.5	
Other direct departmental expenditures	3.1	4.0	-3.8	0.3	98.0	52.8	
Total	142.2	25.6	274.1	176.9	2,517.8	2,863.3	
Direct source of funds							
Federal government <sup>1</sup>	14.2	2.1	44.2	18.0	196.2	350.1	
Provincial governments <sup>1</sup>	109.6	19.6	167.6	125.9	2,060.1	1,955.0	
Municipal governments	—	—	—	—	1.2	0.4	
Fees and other sources	18.4	3.9	62.3	33.0	260.3	557.8	
Total	142.2	25.6	274.1	176.9	2,517.8	2,863.3	
	Man.	Sask.	Alta.	BC	YT and NWT	Overseas and undistributed	Canada
1982-83							
Type of expenditure							
Operating							
Community colleges	20.7	37.9	162.7	199.6	0.4	—	1,633.2
Universities	214.3	199.3	458.6	461.1	—	—	4,738.0
Total	235.0	237.2	621.3	660.7	0.4	—	6,371.2

## 4.12 Expenditures on postsecondary education (million dollars) (concluded)

Year and type of expenditure	Province or region						
	Man.	Sask.	Alta.	BC	YT and NWT	Overseas and undistributed	Canada
Capital	7.4	10.1	195.2	94.4	—	—	595.2
Student aid							463.6
Scholarships and awards	15.4	11.1	36.3	32.1	1.6	19.2	137.5
Cost of loans (excluding loans)	5.3	4.1	12.0	13.5	0.3	0.4	
Total	263.1	262.5	864.8	800.7	2.3	19.6	7,567.5
Other direct departmental expenditures	7.6	3.9	7.6	35.6	0.2	42.8	324.8
Total	270.7	266.4	872.4	836.3	2.5	62.4	7,892.3
Direct source of funds							832.0
Federal government <sup>1</sup>	35.0	28.1	52.7	107.4	0.3	62.4	5,808.0
Provincial governments <sup>1</sup>	193.2	198.0	681.0	567.3	2.2	—	0.7
Municipal governments	0.1	—	0.2	—	—	—	1,251.6
Fees and other sources	42.4	40.3	138.5	161.6	—	—	
Total	270.7	266.4	872.4	836.3	2.5	62.4	7,892.3
1983-84 <sup>P</sup>							
Type of expenditure							
Operating							1,798.9
Community colleges	23.6	42.7	177.9	206.4	3.9	—	5,073.3
Universities	238.5	210.2	508.8	468.9	—	—	
Total	262.1	252.9	686.7	675.3	3.9	—	6,872.2
Capital	12.5	13.8	146.4	87.9	0.7	—	604.1
Student aid							521.9
Scholarships and awards	14.6	16.2	57.7	24.9	1.7	24.1	178.6
Cost of loans (excluding loans)	7.8	5.6	21.2	15.2	0.1	—	
Total	297.0	288.5	912.0	803.3	6.4	24.1	8,176.8
Other direct departmental expenditures	-0.5	1.7	7.0	39.7	0.9	62.5	265.7
Total	296.5	290.2	919.0	843.0	7.3	86.6	8,442.5
Direct source of funds							974.9
Federal government <sup>1</sup>	40.2	35.6	68.8	118.5	0.4	86.6	6,187.6
Provincial governments <sup>1</sup>	208.3	208.3	729.2	597.2	6.8	—	1.7
Municipal governments	0.1	—	—	—	—	—	1,278.3
Fees and other sources	47.9	46.3	121.0	127.3	0.1	—	
Total	296.5	290.2	919.0	843.0	7.3	86.6	8,442.5

<sup>1</sup> See footnote 1, Table 4.7.

## Source

4.1 - 4.12 Education, Culture and Tourism Division, Statistics Canada.

CHAPTER 5

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**EMPLOYMENT AND INCOMES**

## CHAPTER 5

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# EMPLOYMENT AND INCOMES

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## THEN



"The people of the Western part of the New Confederation are almost exclusively occupied in Agricultural pursuits; in the far East, the Fisheries monopolize their labor; in the Central portion, Lumbering is an important industry; while Manufacturing begins to be of consequence in many of the cities, and Mining in a few outlying districts." (1807)

"The L. G. in C. [Lieutenant Governor in Council] may appoint a Guardian for each county to have charge of immigrant children therein with no known parent in the Province; and he is authorized to apprentice them if girls to the age of 18, and boys to that of 21. Harboursing an apprentice, who has left his master without leave, is punishable with a fine of \$40." (1879)


"The average wages paid for farm help during 1910 reached a higher level than in any previous year for which returns have been collected . . . including

**WILLIAM BERRY,**  
ENGINEER

*Manufacturer of Steam and Water Engines,*  
WITH PATENT BRASS VALVES

**ORGAN**

FOR CHURCHES,  
WORKS, AND DOMESTIC USES



**BLOWERS.**

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AND ALL KINDS OF PUMPS

*Lifting Engines, Printing Presses and other Machinery*  
FOR STEAM, WATER, AND OTHER MOTORS.

**NUMEROUS AND HIGHLY RESPECTABLE REFERENCES.**

ESTABLISHED IN 1843, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025

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board, the wages averaged \$307 for males and \$220 for females, as compared with \$341 and \$200 in 1915." (1910-17)

## NOW

The unemployment rate in 1986 stood at 9.0%, some 338,000 above the number of persons with out jobs recorded in 1981 but down 212,000 from the peak in 1983.

On average, 1,145,000 persons received unemployment insurance benefits each month in 1985, up 92.9% from 1980. Over the same period, average weekly benefits rose by 41.4% to \$170.00.

In 1985, average family income ranged from about \$30,000 in some provinces to over \$40,000 in others. Ontario and Alberta had average family incomes above the national average.

## CHAPTER 5

# EMPLOYMENT AND INCOMES

### 5.1 Government in relation to employment

#### 5.1.1 Labour Canada

The federal Department of Labour (Labour Canada) was established in 1900 and now operates under the authority of the Department of Labour Act (RSC 1970, c.L-2 as amended by 1980-81, c.60, June 30, 1981). The Minister of Labour is responsible for the Canada Labour Code, in effect since July 1971. It contains sections on labour standards, safety of employees, and industrial relations. The Department administers acts covering fair wages and hours of work, income maintenance for older employees laid off from designated industries, and worker compensation for government employees and merchant seafarers. The Minister reports to Parliament on behalf of the Canada Labour Relations Board, the Canadian Centre for Occupational Health and Safety, the Merchant Seamen Compensation Board and the Labour Adjustment Review Board.

Concerns such as occupational safety and health; consultation between labour, government and industry; technological change; and equality for women in the work force were among the labour issues earmarked for departmental attention in 1986-87.

Federal industrial relations legislation applies to employers, employees and trade unions employed on federal works and undertakings, including the interprovincial and international railways; highway transport; telephone, telegraph, and cable systems; pipelines; canals; ferries, tunnels and bridges; shipping and shipping services; radio and television broadcasting, including cablevision; air transport; banks; grain elevators; flour and feed mills, feed warehouses, and grain seed cleaning plants; uranium mines; and the employees of some Crown corporations and agencies.

The Department is responsible for conciliation and arbitration procedures in industrial disputes and for processing certain complaints stemming from alleged violation of legislation.

It determines wage rates and hours of work for federal government contracts for construction or supplies, and promotes improved industrial relations through union-management consultation and by preventive mediation through industrial relations consultants. The Department funds practical research on the human impact of technological change in the workplace, facilitates labour participation in important policy discussions, and makes possible temporary staff exchanges between labour organizations, government departments, and joint labour-management institutions.

Labour Canada strives to secure a working environment conducive to physical and social well-being, a fair return for effort, and equitable access to employment opportunities. Headquarters is in Ottawa. The six regions are served by regional offices in Moncton, Montreal, Ottawa, Toronto, Winnipeg and Vancouver and district offices in other cities. Programs and services to the public include enforcement and regulatory responsibilities, education, training and promotional information. The regional offices respond to complaints, investigate accidents, conduct technical surveys, process claims for worker compensation, provide counselling on labour-management relations, organize information seminars to explain legislation administered by the department, and sponsor conferences to further departmental goals and objectives.

**The Women's Bureau.** Established in 1954, the Women's Bureau concerns itself with all aspects of equality between men and women in the labour force. Its activities include the monitoring and review of legislation, programs and policies and the recommendation of initiatives to bring these into line with social and economic developments affecting female workers. The Bureau works with federal, provincial and international agencies to research relevant issues and improve the situation of working women. It publishes a wide range of material, serves as a clearing house for information on women in the labour force, initiates promotional programs

focusing on the issue of securing equality for women in the labour force, and administers a modest grants program designed to support non-governmental projects with similar objectives.

Current areas of study include part-time employment, reproductive health hazards and equal pay for work of equal value. The Bureau also has been monitoring developments emanating from the proclamation of Section 15 of the Canadian Charter of Rights and Freedoms as they affect women in employment.

In addition to its regular statistical and legislative publications, the Women's Bureau, in 1986-87, published studies on the career aspirations of school children and the results of employer and employee surveys of part-time employment in the federal jurisdiction. In February 1986, the Bureau, in co-operation with Labour Canada's Equal Pay Division, sponsored a seminar on equal pay for work of equal value for senior executive officers of major federally regulated companies. A conference for union representatives on the same topic was hosted by the Women's Bureau in February 1987. As part of its ongoing promotional program, the Bureau participates in women's business and educational shows and events.

### 5.1.2 Employment and Immigration Canada

The main objective of Employment and Immigration Canada (EIC) is to further the attainment of national economic and social goals by realizing the full productive potential of human resources, while supporting initiatives of individuals within the public and private sectors to meet their economic needs and in the pursuit of satisfactory work. EIC also administers Unemployment Insurance, immigration and Social Insurance Numbers.

Its activities are carried out in more than 480 Canada Employment Centres (CECs) and 160 Canada Immigration Centres in 10 regions. As well, services are provided to 187 remote or isolated communities. More than 100 CECs serve students on university campuses and 299 outreach projects provide additional services to clients.

The Canadian jobs strategy programs and services are administered through CECs. The programs focus on workers in need and on the requirements of the labour market, emphasizing small business and entrepreneurship. The flexible programs and services can meet changing regional and local needs and invite innovation.

The Canadian jobs strategy recognizes the shared responsibilities of the federal government,

the provinces and the private sector. It is based on a commitment by the government to the provision of equal opportunities for all Canadians, particularly those at a disadvantage in the labour market. These include the four groups designated in the Employment Equity Act: women, disabled persons, aboriginal peoples and visible minorities, as well as long-term unemployed persons, young people, workers whose jobs are threatened by labour market changes and others facing barriers to employment.

The industrial adjustment service provides a forum for employers and employees to solve employment problems. It may help laid-off workers find new jobs, help floundering businesses to recover or seek solutions to economic problems within communities. It also provides a number of other services to employers.

Local advisory councils, working in collaboration with CECs, encourage local business, labour and community groups to meet with government representatives to discuss local employment issues and ways to respond to the needs of local labour market conditions.

**The immigration group** is responsible for the selection and reception of immigrants who will be able to establish themselves economically, culturally and socially. They include those whose skills are required by the Canadian economy, relatives of Canadian residents and refugees. The immigration group is also responsible for the entry of visitors and for enforcement and control measures to prevent admission of undesirable persons. (See also Chapter 2, Demography.)

All visitors entering Canada to take temporary work must have an employment authorization from a Canadian diplomatic mission outside the country. Most applicants must have a job offer from a Canadian employer, certified by a Canada Employment Centre. This regulation protects the labour force against unwarranted use of foreign labour.

**The Unemployment Insurance (UI) program** is administered by Canada Employment and Immigration and comprises labour, management and government, the three partners in financing the UI program. Funded by employers and employees, the UI premium account pays for 80% of program costs. Government general revenue pays for the balance.

**The Social Insurance Number (SIN)** originated in 1964 as a file identifier for the Canada Pension Plan. The Canada Employment and Immigration Commission (CEIC) issues and monitors SIN cards through its central index.



Every worker must have a social insurance number (SIN). It is used as an account number for government administration and on company payrolls. Applicants must provide proof of their identity and their status under the law governing citizens and immigrants. They apply for Social Insurance Numbers through the mail directly to the central index or to Canada Employment Centres across Canada.

## 5.2 Legislation and regulations

The Canada Labour Code (RSC 1970, c.L-1 as amended), which consolidates previous legislation regulating employment practices and labour standards, applies only to federal undertakings and any other operations that Parliament declares to be for the general advantage of Canada or two or more provinces.

Because it imposes conditions on the rights of the employer and employee to enter into an employment contract, labour legislation is, generally speaking, law in relation to civil rights, and provincial legislatures are authorized to make laws in relation both to local works and to property and civil rights. Power to enact labour legislation has therefore become largely a provincial prerogative; a large body of legislation has been enacted affecting working hours, minimum wages, physical conditions of workplaces, apprenticeship and training, wage payment and wage collection, labour-management relations and worker compensation.

### 5.2.1 Federal labour legislation

**Industrial relations.** Part V of the Canada Labour Code regulates the conduct of labour-management relations in federal jurisdiction. The Federal Mediation and Conciliation Service (FMCS) of Labour Canada administers the dispute resolution provisions of the Canada Labour Code. It is responsible for the prevention or settlement of collective bargaining disputes and other types of industrial relations problems in industries and undertakings under federal jurisdiction.

The labour code provides that parties to a collective bargaining dispute must notify the Minister of Labour of any dispute over the negotiation of a collective agreement. The Minister has the option of appointing a conciliation officer, conciliation commissioner, or conciliation board to direct discussions. The legal right to strike or lockout is acquired only if a dispute is not settled when the conciliation process is completed.

If a dispute is not resolved in the first stages, the Minister may appoint a mediator, hoping to avert or resolve a strike or lockout. Both conciliation and mediation efforts rely on persuasion and exploration of available alternatives to assist the parties to resolve their differences. The process differs from arbitration in which a third party makes a binding decision. The Mediation and Conciliation Branch also investigates, on the Minister's behalf, requests for consent to refer bargaining-related complaints to the Canada Labour Relations Board.

The Minister has the authority to appoint industrial inquiry commissions to investigate and make recommendations on labour relations problems affecting an industry or a specific collective bargaining relationship.

The Canada Labour Relations Board determines applications for certification of trade unions as bargaining agents, and deals with successor rights in situations involving merger or amalgamation of unions or sale of businesses. It decides on applications for the termination of bargaining rights based on employee wishes or where bargaining rights were allegedly obtained by fraud. It hears and determines complaints of unfair labour practice against employers, trade unions, or individuals, ordering reinstatement, compensation, or other relief where appropriate. It deals with applications relating to technological change with power to order stay of implementation and opening of negotiations. Where cases are referred by the Minister of Labour, the board may impose the provisions for a first collective agreement. The board processes applications alleging unlawful strike or lockout and has authority to issue cease and desist orders. The board supervises union hiring hall rules and requires trade unions and employer organizations to provide annual financial statements to their members. On the application of a trade union it may order an employer or proprietor to grant union representatives access to employees in remote areas. The board deals with appeals against the decision of a safety officer in situations where imminent danger is alleged and determines complaints alleging that employees have been penalized for exercising rights.

**Labour standards.** Part III of the Canada Labour Code sets minimum standards of employment for employers and employees in industries under the legislative authority of Parliament.

**Occupational safety and health.** Part IV of the Labour Code, promulgated in 1968 and amended

in 1978 and 1984, was the first general legislation passed by Parliament to deal exclusively with occupational safety and health. It obliges employers and employees to perform their duties in a safe manner, authorizes regulations to deal with safety and health problems, and provides authority for the establishment of joint labour-management safety and health committees with specific powers. It gives workers the right to refuse to work where their health or safety could be endangered and provides for research into causes and prevention of accidents and for an extended safety education program. Federal public service employees are given similar protection under Treasury Board policy and occupational safety and health standards.

Regulations govern coal mine safety, elevating devices, first aid, machine-guarding, noise control, hand tools, fire safety, temporary work structures, confined spaces, safe illumination, boilers and pressure vessels, building safety, dangerous substances, electrical safety, materials handling, protective clothing and equipment, sanitation, hours of service in the motor transport industry, occupational safety and health in the uranium mining industry, safety and health committees, and accident investigation and reporting.

### 5.2.2 Provincial labour legislation

**Industrial relations.** All provinces have legislation designed to establish harmonious relations between employers and employees and facilitate settlement of industrial disputes. These laws guarantee freedom of association and the right to organize, provide for labour relations boards or other administrative bodies to certify trade unions as bargaining agents, and require an employer to bargain with the certified union representing its employees. In some jurisdictions, legislation requires that parties comply with conciliation or mediation procedures before a strike or lockout may legally take place. Every collective agreement must provide for settlement, without work stoppage, of disputes arising out of its interpretation or application. Strikes and lockouts are prohibited during the life of a collective agreement, and unfair labour practices are prohibited. In some provinces, labour relations are regulated by separate statutes for groups such as teachers, municipal and provincial police personnel, municipal firemen, hospital workers, civil servants and employees of Crown corporations.

In Alberta, New Brunswick, Newfoundland, Nova Scotia, Ontario and Prince Edward Island,

the general labour relations statutes contain special provisions pertaining to collective bargaining in the construction industry. In British Columbia, the accreditation procedure is not limited to this industry. Quebec has a separate law regulating collective bargaining in the construction industry.

## 5.3 Conditions of work

### 5.3.1 Employment standards

**Hours of work.** The labour code sets a standard workday and workweek for employees in undertakings in the federal labour jurisdiction and requires payment of an overtime rate for work done beyond the hours specified. It establishes a maximum workweek, overtime hours being restricted to eight in a week, except in special circumstances.

The number of hours that may be worked at regular rates of pay are limited to eight in a day and 40 in a week. Hours in excess of these may be worked, provided one and one-half times the regular rate is paid, up to a maximum of 48 hours a week.

Provincial and territorial governments also have legislation governing hours of work of employees under their jurisdiction.

**Minimum wage.** The labour code sets a minimum rate for employees in the federal industries. This rate may be increased by order of the Governor-in-Council.

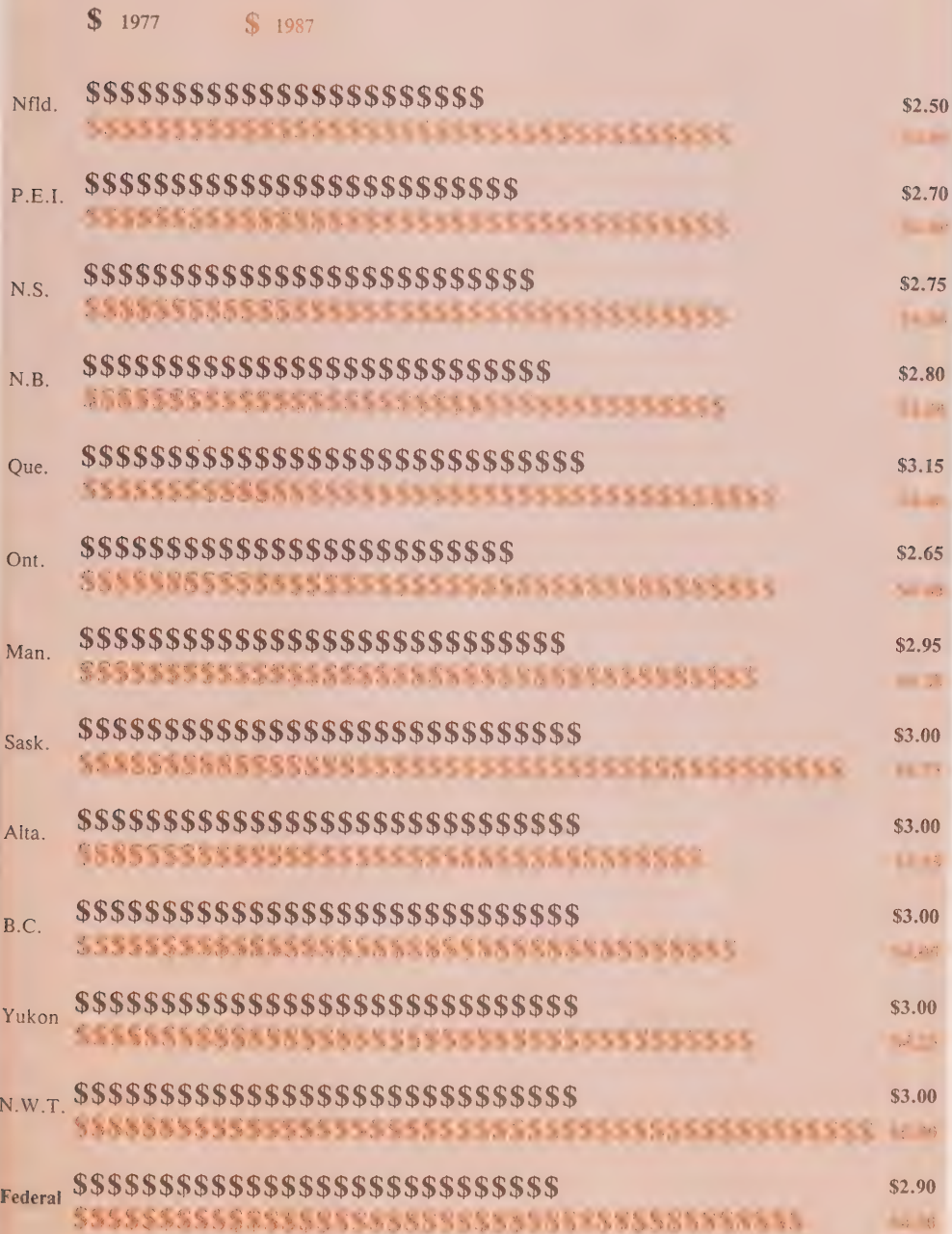
Employees paid on other than a time basis, such as pieceworkers and persons paid a mileage rate, must be paid the equivalent of the minimum wage.

An employer who is providing on-the-job training to increase the skill or proficiency of employees may be exempted from paying the minimum wage during all or part of the training period.

All provinces and territories have minimum wage legislation. These laws vest authority in a minimum wage board or the Lieutenant Governor-in-Council to set wages. Minimum wage orders are reviewed frequently. In most provinces such orders cover practically all employment. Alberta, British Columbia, Manitoba, Nova Scotia, Ontario and Prince Edward Island have special rates for young workers or students. Manitoba, however, is in the process of eliminating its youth differential.

In Northwest Territories and Yukon, labour standards regulations are issued under labour standards ordinances.

Chart 5.1  
Minimum wages per hour, 1977 and 1987



Note: As of February 1987.



**Regulation of wages and hours.** In some provinces, the general orders are supplemented by special orders, applying to a particular industry, occupation or class of workers. Quebec has orders governing the retail food trade, public works, forestry operations and domestics.

Nova Scotia has established special rates for employees in beauty parlours, logging and forest operations, and road building and heavy construction. British Columbia has special rates for domestics, farm and horticultural workers and residential caretakers in apartment buildings. In Alberta, a weekly rate has been set for commercial agents and sales people. In Ontario, special rates apply to servers of alcoholic beverages and domestics and to the construction and ambulance service industries.

In Quebec, certain terms of a collective agreement, including those dealing with hours and wages, may be made binding on all employers and employees in an industry provided the parties to the agreement represent a sufficient proportion of the industry. Approximately 60 decrees are in effect, applying to the garment trades, barbering and hairdressing, commercial establishments, garages and service stations and other industries and services. In construction, working conditions are governed by a decree under the Construction Industry Labour Relations Act.

A construction wages act in Manitoba, applying to both private and public work, sets minimum wage rates and maximum hours of work on the recommendation of a board equally representing employers and employees, with a member of the public as chairman.

**Fair wages policy.** Wages and hours on federal government construction contracts are regulated by the Fair Wages and Hours of Labour Act and its regulations. The rates are never less than the minimum hourly rate prescribed in the labour code. Wages and hours of work on contracts for equipment and supplies are regulated by order-in-council.

**Annual vacations.** In the federal jurisdiction, the labour code provides for a vacation with pay of at least two weeks for a year of employment and three weeks after six years. Vacation pay is 4% of wages for the year and 6% of annual earnings after six years of employment.

All provinces and territories have annual vacation with pay provisions. The general standard is two weeks. In British Columbia and Northwest Territories, workers are entitled to three weeks after five years of service; in Manitoba,

three weeks after four years; in Quebec, three weeks after 10 years; and in Saskatchewan, three weeks after one year and four weeks after 10 years.

**General holidays.** Legislation deals with paid general holidays in the federal jurisdiction, the two territories and the following provinces: Saskatchewan, Newfoundland, Quebec, Alberta, British Columbia, Manitoba, New Brunswick, Nova Scotia and Ontario. Under the federal jurisdiction there are nine paid general holidays. In the specified provinces and territories the number varies from five to nine days during the year, when workers have a general holiday with pay.

**Maternity leave.** Under federal jurisdiction, an employee who has completed six consecutive months with an employer is eligible to take 17 weeks of maternity leave. The period of time in which the leave may be taken begins 11 weeks before the expected date of delivery and ends 17 weeks following the actual delivery date. An additional 24 weeks of child care leave is available to either parent whether natural or adoptive.

All provinces and Yukon have legislation to ensure job security of women workers before and after childbirth. Alberta, Saskatchewan, British Columbia and Quebec provide for 18 weeks. Manitoba, New Brunswick, Newfoundland, Nova Scotia, Ontario, Prince Edward Island and Yukon provide for 17 weeks. The leave may be divided into pre- and post-natal leave generally at the discretion of the employee.

Post-natal leave is compulsory in Alberta. In British Columbia, Newfoundland, Nova Scotia and Ontario, it is compulsory, unless a medical doctor authorizes an earlier return to work. In some jurisdictions, an extension of post-natal leave is allowed where recommended in a medical certificate. In Saskatchewan, the employer must agree to a shorter period of post-natal leave. In all jurisdictions, the right to maternity leave is supplemented by a guarantee that an employee will not lose a job because of absence on maternity leave.

Five provinces have legislation dealing with paternity and/or adoption leave. In Nova Scotia, a female employee may be granted leave of absence up to five weeks when adopting a child five years old or younger. In Prince Edward Island, a similar provision grants up to six weeks leave of absence without pay to a female employee adopting a child six years old or younger. In Quebec, an employee may be absent from work without pay for two days at birth or adoption of a child. In Saskatchewan, an



employee who has worked continuously for at least 12 months is entitled to six weeks maximum paternity or adoption leave. In Manitoba, paternity leave of up to six weeks and adoption leave of up to 17 weeks are available. All jurisdictions establishing maternity leave, paternity and adoption leave provide for maintenance or accrual of seniority and other benefits.

**Human rights.** Laws to ensure fair employment practices have been enacted throughout Canada. These include employment-related subjects such as membership in trade unions. All jurisdictions have augmented this legislation to form a human rights code. Northwest Territories and Yukon have enacted fair practices acts. Most of these codes cover employment, occupancy and property matters, and access to facilities generally available to the public.

Most jurisdictions prohibit discrimination on grounds of race, religion, national origin, colour, sex, age and marital status. In selected cases, the prohibited grounds include political beliefs, ethnic origin, physical handicap, creed, source of income, ancestry, social condition, attachment or assignment of pay, a conviction for which a pardon has been granted, and sexual orientation.

Attention is being paid by the federal government to employment of the handicapped. A special parliamentary committee on the disabled and the handicapped reported its findings in a publication, *Obstacles*, in February 1981. Guidelines have been issued for employment of the handicapped in the federal public service, federal public buildings are being renovated to facilitate access, and the federal government is urging employers in the federal sector to give equal employment opportunities to the handicapped.

Equal pay provisions exist across Canada. Criteria for determining the meaning of equal work vary from one act to another. Methods of enforcement also vary.

**Apprenticeship.** All provinces have apprenticeship laws providing for organized on-the-job training and school instruction in designated skilled trades. Statutory provision exists for issuing qualification certificates, on application, to tradesmen in certain trades. In some provinces legislation makes it mandatory for certain classes of tradesmen to hold certificates of competency.

**Occupational safety and health.** Although both federal and provincial legislatures have the power to enact laws and regulations concerning the protection of workers against industrial accidents or diseases, the provinces have major

responsibility. The federal authority is limited to industries under federal jurisdiction. Legal standards and regulations designed to ensure the safety, health and welfare of persons employed in resource, industrial and commercial establishments exist in all jurisdictions.

Safeguards for worker protection are established for fire safety, sanitation, heating, lighting, ventilation, protective equipment, materials handling, safety of tools, guarding of dangerous machinery, safe handling of explosives and protection against noise and radiation.

Other safety laws and regulations concern hazardous equipment such as boilers and pressure vessels, electrical installations and elevating devices. A growing number govern toxic substances and occupational health hazards. Still others regulate hazardous industries such as mining, construction, demolition and logging.

Safety inspection is provided for in all provinces. Penalties exist where an employer contravenes any provision of an occupational safety and health act or regulation, or fails to comply with a direction made by an inspector. In all jurisdictions, an employee has the right to refuse dangerous work.

### 5.3.2 Termination of employment

**Individual termination.** In the federal jurisdiction, an employer who terminates the employment of an employee who has completed three consecutive months of employment has to give that employee two weeks notice in writing or two weeks wages at the regular rate. The code prohibits dismissal, layoff or suspension of an employee due to garnishment or notice of garnishment proceedings. Protection against dismissal is provided to an employee who is absent due to sickness for 12 weeks or for a longer period if an employee is undergoing treatment and rehabilitation at the expense of a worker compensation authority. Unorganized employees have the right to lay a complaint if they feel they have been dismissed unjustly. The case may be dealt with by adjudication if a satisfactory settlement cannot be otherwise arranged. Nova Scotia protects employees with 10 years service against dismissal without just cause. Quebec does the same for employees with five years service.

All provinces also have legislation requiring an employer to give notice to an individual worker whose employment is terminated.

**Group termination of employment.** Under federal jurisdiction, an employer must give notice when he terminates the employment of 50 or

more employees in one establishment within a four-week period. Length of notice varies with the size of group terminated: 50 to 100 require eight weeks notice; 101 to 300, 12 weeks notice; and 301 or more, 16 weeks notice.

At the provincial level, five provinces require an employer to give notice of a planned termination of employment or layoff of a group of employees. In Manitoba, Newfoundland and Ontario, group notice requirements apply when an employer plans to terminate the employment of 50 or more persons within four weeks. Length of notice is related to the number of workers involved. Manitoba requirements are: 50 to 100 employees, eight weeks; 101 to 300, 12 weeks; over 300, 16 weeks. In Ontario and Newfoundland: 50 to 199 require eight weeks; 200 to 499, 12 weeks; and 500 or more, 16 weeks. In Yukon: 25 to 49, four weeks; 50 to 99, eight weeks; 100 to 299, 12 weeks; 300 or more, 16 weeks. The numbers of employees terminated refer to a period of four weeks. In Nova Scotia, a group notice requirement applies when an employer contemplates dismissal of 10 or more employees within four weeks and in Quebec within two months. Length of notice varies with the number of workers involved: 10 to 99 require two months; 100 to 299, three months; 300 and over, four months.

**Severance pay.** Under federal jurisdiction an employer who terminates an employee with 12 months service must pay the greater of two days wages for every year of employment, or five days wages. Ontario also provides for severance payments in certain circumstances.

### 5.3.3 Worker compensation

Federal involvement in worker compensation is limited to areas of direct federal interest which cannot be covered by provincial legislation. The Government Employees Compensation Act covers employees of the public service of Canada and several Crown corporations. The federal penitentiary inmates compensation scheme covers inmates injured during work-related activities. The Merchant Seamen Compensation Act covers seafarers not covered by provincial acts.

Compensation is generally provided to federal government employees for personal injuries sustained during the course of their employment. Compensation is also payable for industrial diseases arising from work.

Claims are largely administered on behalf of the federal government by the provincial worker

compensation boards. Benefits are identical to rates set by individual provinces.

Various types of benefits are provided for a worker protected by compensation legislation. Benefits for disability are based on a percentage of average weekly earnings. Persons with a permanent or temporary total disability, presumed not to be able to work at all, receive 75% of gross average weekly earnings (90% of net earnings in Newfoundland, New Brunswick, Quebec, Ontario, Saskatchewan and Alberta) as long as the disability lasts. Partial disablement entitles a worker to proportionate compensation. Medical, hospital and rehabilitation benefits are also provided.

A primary objective of compensation is rehabilitation of the injured worker. Boards may adopt any means considered expedient to help get workers back to work and to lessen any handicap. In British Columbia, Alberta, Saskatchewan and Newfoundland, the boards may also provide counselling and vocational assistance to the dependent spouse of a deceased worker in order to help that person find employment or become self-sufficient.

Except in Nova Scotia, Prince Edward Island and Northwest and Yukon Territories, where monthly payments are fixed by law, benefits to dependents, in fatal cases, are calculated according to the worker's earnings.

## 5.4 Organized labour

### 5.4.1 Union membership

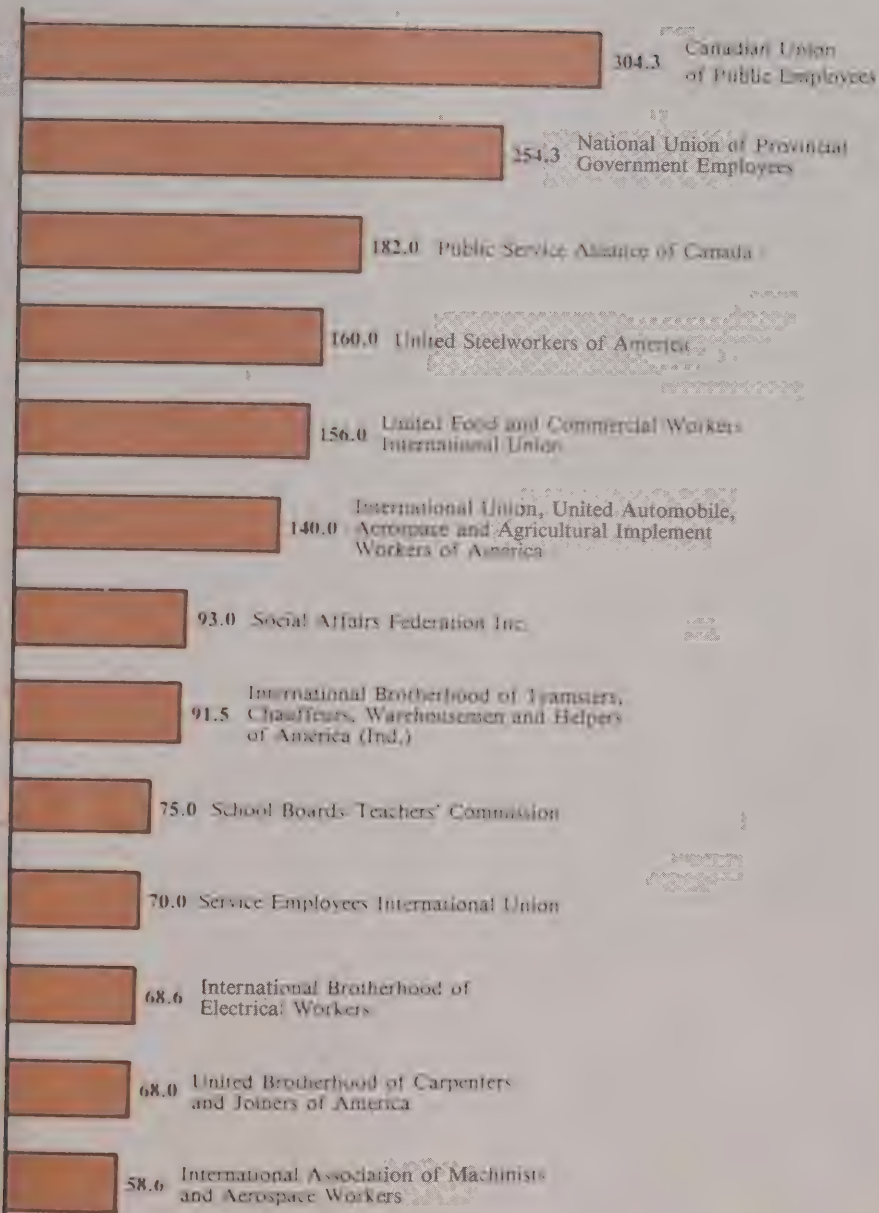
At the beginning of 1986, there were 3,730,000 union members in Canada, 1.7% more than in 1985 (3,666,000 members) and 2.2% more than in 1984 (3,651,000 members). Union membership as a percentage of the non-agricultural paid work force, however, fell to 37.7% in 1986 from 39.0% in 1985 and 39.6% in 1984. This decline reflects the increase in the total number of workers in the economy rather than a decrease in union membership.

The eight largest unions in Canada retained the ranking they established in 1985 and recorded a total net gain in membership. Unions recording an increase in membership include the Canadian Union of Public Employees (CUPE), the National Union of Provincial Government Employees (NUPGE), the Public Service Alliance of Canada (PSAC), the United Steelworkers of America (USA), the United Food and Commercial Workers (UFCW), and the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW). The

Chart 5.2

## Unions with largest membership, 1986

In thousands





steelworkers registered the sharpest increase in membership, from 148,000 to 160,000, a gain of 8.1%. Membership in the Canadian Union of Public Employees, the biggest union in Canada, reached 304,000. This is the first time in Canadian history that a union membership has reached the 300,000 mark.

During the period 1980 to 1986, the number of national unions increased from 128 to 219, and membership from 1.7 million to 2.1 million. At the same time, international unions decreased from 80 to 67, and their membership from 1.6 million to 1.5 million. A preliminary analysis of the data suggests that the decrease among international unions is largely the combined result of mergers and changes in affiliation. The increases recorded for national unions appear to be partly the result of shifts in affiliation, but also the consequence of more information from increased response to the survey.

In 1986, CLC's affiliated membership amounted to 2,164,000, an increase of 44,000 from the 1985 total of 2,120,000.

In 1986, a significant growth occurred in the number of smaller national unions (those covering 50 to 999 workers). Their number increased to 77 in 1986 from 51 in 1985 and 24 in 1980. The number of national unions with 1,000 or more members increased to 142 in 1986 from 139 in 1985 and 104 in 1980.

#### 5.4.2 Collective agreements

Labour Canada publishes quarterly base rate settlement data for collective agreements. The agreements covered are limited to negotiating units of 500 or more employees in all industries except construction. The base rate for a negotiating unit is defined as the lowest rate of pay, expressed in hourly terms, for the lowest-paid classification used for qualified workers in the bargaining unit. The wage data are not necessarily representative of the average increases received by the workers in the whole negotiating unit. Nevertheless, the data are aggregated using the total number of employees in the negotiating unit.

Major collective agreements settled in the third quarter of 1986 provide base rate increases averaging 3.1%. This is a sizeable decline from the second quarter's 3.7% and equals the lowest quarterly figure on record since the start of the wage settlement series in 1967. Average increases for the year to date stand at 3.4%, slightly less than the 3.6% for 1985 as a whole.

#### 5.4.3 Strikes and lockouts

Statistical information on strikes and lockouts in Canada is compiled by Labour Canada on the

basis of reports from employment centres, provincial labour departments and other sources. The 825 work stoppages reported in 1985 involved 159,727 workers and 3.2 million person-days lost. Corresponding figures for 1984 were 717 stoppages, 186,755 workers and 3.9 million person-days lost. As a percentage of the total estimated working time of non-agricultural paid workers, time lost was 0.16% in 1984 and 0.13% in 1985.

### 5.5 The labour force

#### 5.5.1 Monthly labour force surveys

Statistics relating to employment and unemployment at national and provincial levels are provided through a Statistics Canada labour force survey, carried out monthly.

The survey sample represents all persons 15 years of age and over residing in Canada except: residents of Northwest Territories and Yukon, persons living on Indian reserves, inmates of institutions and full-time members of the armed forces. Interviews are carried out in approximately 48,000 households chosen by area sampling methods across the country. Estimates of employment, unemployment and non-labour force activity generated from the survey refer to a specific week each month, normally the week containing the 15th day. The labour force is composed of members of the civilian non-institutional population 15 years of age and over who, during reference week, were employed or unemployed.

**The employed** are defined as all persons who, in the reference week, did any work for pay or profit, either paid work in an employer-employee relationship or self-employment. Included is unpaid family work contributing to the operation of a farm, business or professional practice owned or operated by a related member of the household. It also includes persons who had jobs but were not at work due to illness or disability, personal or family responsibilities, bad weather, labour disputes or other reasons.

**The unemployed** are those who, in the reference week, were without work, had actively looked for work in the past four weeks and were available for work; had not actively looked for work in the past four weeks but had been on layoff, with expectation of returning to work, and were available for work; or had a new job to start in four weeks or less and were available for work. Persons not in the labour force are those defined as neither employed nor unemployed.



**Recent labour market developments.** The Canadian labour force went through a period of significant change from 1981 to 1986. The economy experienced its most severe recession since the 1930s during the period from mid-1981 until the end of 1982. This was followed by a span of continuous recovery throughout the remainder of the 1981-86 period.

In the decade preceding the recession, the labour force grew at a robust rate of about 3.8% per year. The number of women in the labour force increased by 63% during that period; the number of men rose by only 24%. While the number in the labour force rose in all major age/sex categories, the increase was most significant for women aged 25 and over (73.4%). As a result, the difference in the participation rates for men and women (the percentage of persons in the population taking part in the labour force) narrowed from 37.9% in 1971 to 26.7% by 1981.

During the economic downturn in 1981-82, the overall size of the labour force remained virtually unchanged, with an increase of 1.5% for women being offset by a decline of 0.3% among men. Employment levels dropped sharply (3.3%) from 11,006,000 in 1981 to 10,644,000 in 1982. This decrease of 362,000 persons employed came as the result of a decline of 409,000 in the number of persons working full-time while part-time employment rose moderately (47,000). There were employment declines in all sectors with the exception of finance, insurance and real estate and community, business and personal services. The most severely affected industries were the primary industries other than agriculture (-16.1%), manufacturing (-9.0%), and construction (-8.3%).

The recovery, which began in early 1983, continued throughout the period up to 1986. While average employment in 1983 rose only 90,000 (0.8%) over the level in 1982, it maintained a more substantial growth of about 2.8% during the subsequent three years of the recovery. However, some aspects of the recovery have been less than uniform.

Employment increases in service-producing industries have averaged 2.8% per year during the four years of recovery while the goods-producing sectors averaged a more modest 1.4% growth. In fact, none of the goods-producing industries had achieved their pre-recession peaks by 1986, whereas only one of the service sectors, transportation, communications and utilities, still remained below its 1981 peak. This increase in service sector employment has resulted in strong growth in part-time employment,

bringing its share of total employment to 15.6% in 1986 compared to 13.5% in 1981. Increases in employment for women accounted for nearly 60% of the overall gains during the recovery period. Across the provinces, the recovery has been strongest in Central Canada, with gains of 10.9% and 12.0% in Quebec and Ontario, respectively, for the four years. Aside from Prince Edward Island, which posted employment increases of 15.6% during the same period, the Atlantic provinces averaged employment growth in the 10% range except for Newfoundland (at 4%). The weakest growth during the period since 1982 occurred in Alberta (1.2%), which did not reach its minimum employment level until 1984 and where the recent recovery has been affected by low world prices for crude petroleum.

Unemployment as a percentage of the labour force reached a peak of 11.9% in 1983. It declined to an average of 9.6% by 1986, still significantly above the rate of 7.5% which was recorded in 1981. The rate for youth aged 15 to 24 stood at 15.2% in 1986, down from the recessionary peak of 19.9%; it was 8.0% for persons aged 25 and over, from 9.4% in 1983. The unemployment level in 1986 stood at 1,236,000, which was 338,000 above the number of persons without jobs recorded in 1981 but down 212,000 from the peak in 1983.

### 5.5.2 Other labour market highlights

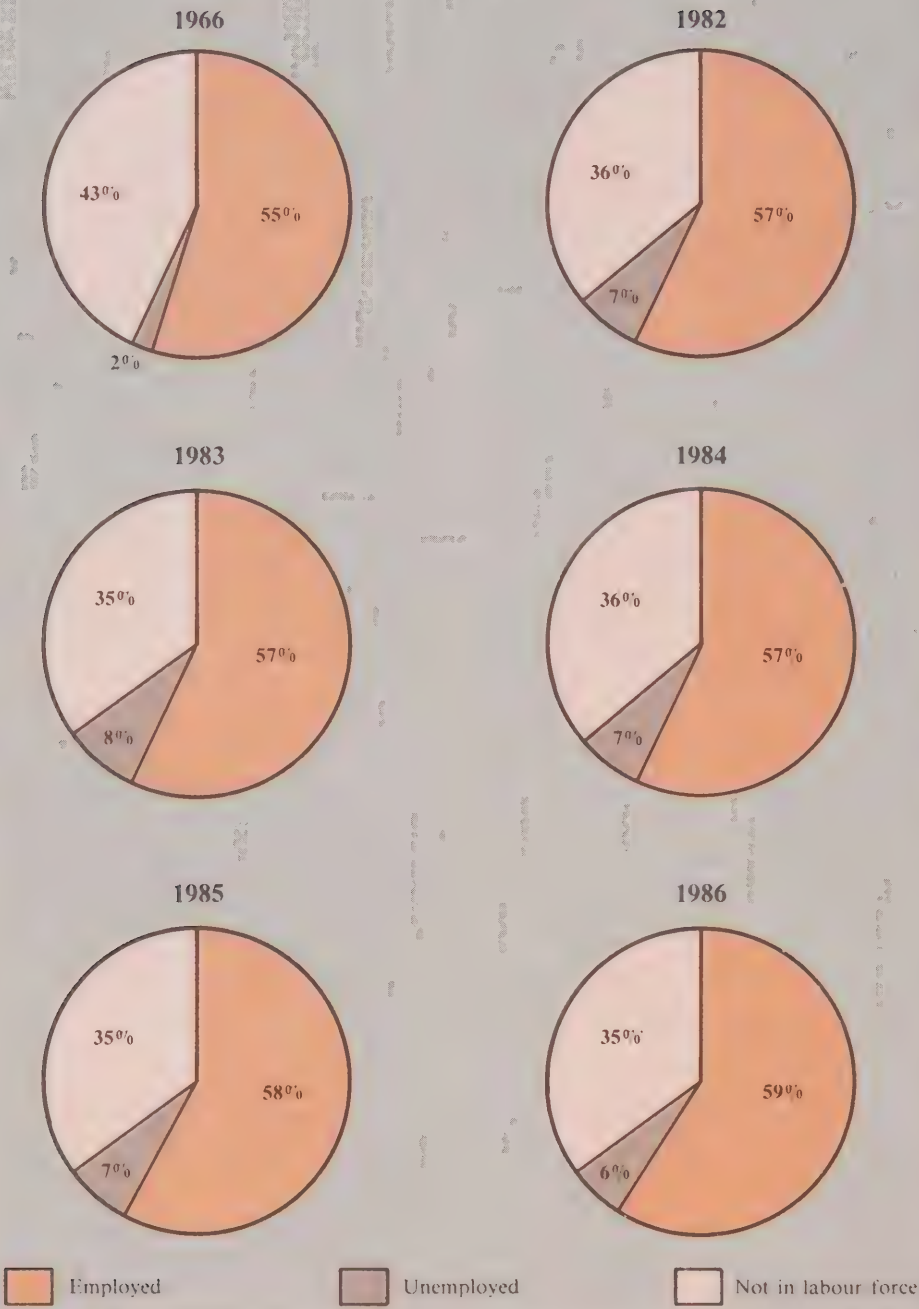
Statistics Canada regularly adds a series of supplementary questions to the monthly Labour Force Survey (LFS). Although these supplementary surveys cover a wide range of topics, many ask labour-market-related questions, which subsequently provide data dealing with the patterns and characteristics of the labour market. This information can then be analyzed in conjunction with LFS data. The following are highlights from several LFS supplementary surveys:

**Survey of volunteer work.** In the 12-month period ending February 1980, about 15% of Canada's adult population contributed a total of 374 million hours of voluntary work.

**Survey of union membership.** Among full-time workers in December 1984, the average hourly earnings of women were 26% less than those of men.

**Survey of job opportunities.** In March 1986, an estimated 245,000 persons wanted a job but did not seek work because they were waiting for recall, waiting for replies or believed no work was available.

Chart 5.3  
Labour force status of working-age population



**Survey of child care arrangements.** Slightly more than half of all pre-school age children (0-5 years) received some non-parental care for each week in February 1981.

**Annual work patterns survey.** In 1985, 70.4% of persons aged 15 and over worked at some time during the year; 18.6% of the working age population experienced unemployment at some time in 1985.

**Absence from work survey.** When absent from work more than two weeks due to illness, accident or pregnancy, a greater percentage of men (89.1%) received some form of compensation than women (79.3%) in 1984.

### 5.5.3 Labour force Census data

The Census collects Canadian labour market information once every five years. It is one of Canada's richest data sources and the only survey which provides detailed information on small areas. Census data can be analyzed according to a wide range of socio-cultural and demographic characteristics. For example, the Census provides data on employment by industry and occupation for women, youth or ethnic groups.

The type of labour market data collected by the Census varies from one Census year to the next. The 1986 Census was the first mid-decade Census to include labour questions relating to occupation and industry. This new data need was prompted by rapid labour market changes in the Canadian economy, and by an increased reliance on Census data by economists and other labour market analysts.

Because of differences in coverage, methodology and reference period, Census information is not entirely comparable with the monthly Labour Force Survey (LFS) data, even though the fundamental concepts are the same. For example, the 1986 Census labour force questions were asked of all persons aged 15 and over, excluding inmates of institutions; the LFS further excludes the Yukon and Northwest Territories, Indian reserves, members of the armed forces, overseas households and inmates of institutions. Also, while the Census labour force questions were asked of a 20% sample, the LFS questions are asked of less than 1% of households.

## 5.6 Employment statistics

### 5.6.1 Employment, earnings and hours

The new Survey of Employment, Payrolls and Hours (SEPH) was introduced in April 1983.

This is a sample survey covering firms and organizations of all sizes in all industries except agriculture, fishing and trapping, religious organizations, private households and military personnel. Estimates of the number of employees, average weekly earnings, average weekly hours and average hourly earnings are derived from this survey; the data are based on the 1970 Standard Industrial Classification (SIC).

Monthly employment estimates relate to the number of employees, both full-time and part-time, drawing pay in the last seven days in the month. Respondents are asked to report gross wages and salaries paid before deductions are made. Reported payrolls represent gross remuneration and paid absences, including salaries, commissions, piecework, and such items as shift premiums, and regularly paid production, incentive and cost of living bonuses. Working owners and partners of unincorporated business and professional practices are excluded.

**Industrial employment.** Table 5.13 indicates that, over the 1983-85 period, industrial aggregate employment for Canada rose by an estimated 4.8%. Among industry divisions showing gains, trade showed the largest increase (8.8%), followed by community, business and personal services (8.1%) and construction (7.9%). The largest decline over this period was in forestry (-4.2%).

**Average weekly earnings.** The average weekly earnings of all employees at the national industrial aggregate level increased from \$390.55 in 1983 to \$419.27 in 1985 (7.4%). The largest increases were observed in mines, quarries and oil wells (11.5%) and manufacturing (10.8%). (See Table 5.13.)

**Average weekly hours and average hourly earnings.** The average weekly hours of employees paid by the hour, who represent approximately 46% of industrial aggregate employment, have remained at 32.5 hours in each year over the 1983-85 period. At the industry level, the most significant changes noted over this period were in mines, quarries and oil wells, from 38.7 to 39.6 hours, and in construction, from 37.1 to 37.8 hours per week. The only decrease in average weekly hours was in forestry, from 38.8 to 38.5 hours.

Average hourly earnings (including overtime) of employees paid by the hour increased from \$9.91 to \$10.52 (6.2%) over the 1983-85 period. Increases were noted in all industry divisions with mines, quarries and oil wells (9.7%) and manufacturing (9.4%) showing the largest changes. (See Table 5.14.)



### 5.6.2 Labour income

Labour income, comprising wages and salaries and supplementary labour income, is defined as compensation paid to employees residing in Canada and to Canadians who are employed abroad by the federal government. Not included are earnings received by self-employed persons such as independent professionals, proprietors of unincorporated businesses and farmers. Also excluded are military pay and allowances because they are shown as a separate item in the national income accounts.

Wages and salaries include director fees, bonuses, commissions, gratuities, income in kind, taxable allowances and retroactive wage payments. Wages and salaries are estimated on a gross basis, before deductions for employee contributions to income tax, unemployment insurance and pension funds. Remuneration accumulating over time, for example, retroactive payments, are accounted for in the month and year of payment.

Supplementary labour income, defined as payments made by employers for the future benefit of their employees, comprises employer contributions to employee welfare and pension funds, worker compensation funds and unemployment insurance.

### 5.6.3 Help-wanted index

The help-wanted index serves as an indicator of labour market conditions by measuring changes in the demand for labour relative to a base year, currently 1981. The index measures changes in the amount of space devoted to help-wanted ads published in the classified sections of 18 major metropolitan area newspapers. Excluded are ads which are titled "careers" or "opportunities". The help-wanted index is published monthly for Canada and the five regions. Time series for these geographic areas (see Table 5.16) are available starting in 1962.

## 5.7 Income maintenance

### 5.7.1 Pension plans

**Private pension plans.** Socially and economically, one of the most significant aspects of the income maintenance system is the extent of labour force participation in employer-sponsored pension plans. At the beginning of 1984, there were 17,711 private pension plans (employer-sponsored) operating in Canada, according to a pensions data bank maintained by Statistics Canada. These plans, which have grown in number by more than 16% since 1982, covered

4.6 million workers, a decrease of 93,312 in the same two years.

Plan members represented 47% of the employed paid workers in the labour force including the armed forces. Excluded from the labour force data were unpaid family workers, the self-employed and the unemployed who by definition are not participants in employer-sponsored pension plans.

Plan sponsors included both the public and private sectors. Although there were only 803 public sector plans they accounted for 45% of all members.

Small plans tend to be funded with insurance companies. Although there were 12,788 of these plans, they covered only 13.6% of the members. Large plans were funded on a trustee basis. A trustee pension fund is an arrangement under which contributions to a pension plan are deposited with a trustee who is responsible for holding and investing the funds and paying the benefits in accordance with the terms of a trust agreement.

Only 26% of all plans were trustee but they covered 3.1 million members. Some of the largest were the 19 plans for federal and some provincial public servants, covering 712,583 members. Contributions for these plans are paid into consolidated government revenue funds and are not held in cash or securities.

**Other pension plans,** including the Old Age Security Program, the Canada and Quebec pension plans and other income maintenance programs, are described in Chapter 6, Social security.

### 5.7.2 Unemployment Insurance

One important Canadian income support program is the Unemployment Insurance program. In 1985 alone, over \$10.2 billion was paid to approximately 3.3 million persons who experienced some interruption in their employment income. This compares, for example, with disbursements of \$4.4 billion in 1980. To provide some perspective, during the fiscal year 1984-85, a total of \$42.7 billion was paid in Canada through income security programs. Of this amount, 23.8% was distributed through Unemployment Insurance payments, 19.2% through the Old Age Security Program and 13.7% through the Canada and Quebec pension plans.

The Unemployment Insurance Act of 1971 covers virtually all paid workers in the labour force as well as members of the armed forces. The main exceptions are persons 65 years of age and over and individuals who work fewer than 15 hours per week and who earn less than 20%



of the maximum weekly insurable earnings (respectively, \$99 and \$495 in 1986).

After a qualifying period, usually the 52 weeks immediately preceding the claim, workers may be eligible to receive Unemployment Insurance benefits if they experience a loss of earnings. They may apply for regular benefits if they experience a layoff or for special benefits in case of sickness, birth or adoption of a child or retirement. In addition, there are fishing, job creation and work-sharing benefits.

On average, 1,145,000 persons received Unemployment Insurance benefits each month in 1985, up 62.9% or by 442,000 beneficiaries from 1980. Over the same period, average weekly benefits rose from \$120.92 to \$170.96 or by 41.4%. (See Tables 5.25 and 5.26.)

The Unemployment Insurance statistics are obtained from Employment and Immigration Canada. The data which are released monthly include information on claims received, benefits paid, disqualifications, beneficiaries and persons covered by Unemployment Insurance.

### 5.7.3 Compensation payments

**Fatal occupational injuries and illnesses.** Data on fatal occupational injuries and illnesses compiled by Labour Canada are collected from provincial worker compensation boards. From 1976 to 1985, an annual average of 968 industrial workers sustained fatal injuries and illnesses. Of 648 fatality reports received in 1985 (excluding Quebec), collisions, derailments or wrecks caused 146 deaths; being struck by or against an object, 102; falls and slips, 46; drowning, 25; being caught in, on or between objects or vehicles, 36; occupational illnesses, 104; fire, explosion, temperature extremes, 24; and the remaining 165 resulted from miscellaneous accidents (Tables 5.22 to 5.24).

## 5.8 Family incomes

Annual statistics on income distribution for families and individuals are derived from the Survey of Consumer Finances. The data are an important source of statistical information for government and non-government data users concerned with the development, analysis and evaluation of policies and programs related to the economic well-being of Canadians.

### 5.8.1 Family and income concepts

The survey, with a sample of approximately 35,000 dwellings, excludes residents of Yukon and Northwest Territories, and persons living in institutions, on Indian reserves and in military

camp. A wide variety of tabulations are published for different units (households, families, individuals). Special tabulations and public use microdata files are available on a cost-recovery basis.

The following definitions are applicable to the tabulations presented.

**Family.** A group of individuals sharing a common dwelling unit and related by blood, marriage or adoption. This is often referred to as an economic family and is a broader definition than that employed by most demographic studies and the Census in which a family is restricted to a married couple with or without unmarried children or a parent with unmarried children.

**Unattached individual.** A person living alone or in a household where he or she is not related to other household members.

**Income.** Money income received from all sources before payment of taxes and such deductions as pension contributions and insurance premiums. This income may be composed of: wages and salaries; net income of self-employment such as partnership in unincorporated businesses, professional practice and farming; investment income including interest, dividends and rents; government transfer payments, such as family allowances and old age security; and alimony. It does not include the value of farm products produced and consumed on the farm. The survey income concept differs from that used in the calculation of income tax since it includes such non-taxable money income as the Guaranteed Income Supplement and social assistance payments.

**Low income cut-offs** are used to delineate low income family units from other family units. These cut-offs were determined separately for families of different size and living in areas of different degrees of urbanization, based on 1978 family expenditure data. The cut-offs were selected on the basis that families with incomes below these limits usually spent 58.5% or more of their income on food, shelter and clothing and were considered to be in straitened circumstances. The cut-offs were reviewed in light of more recent family expenditure data (1982) and a revision was not warranted. Although Statistics Canada low income cut-offs are popularly referred to as "poverty lines", they have no official status and are not promoted as such by Statistics Canada.

### 5.8.2 Income trends, 1971-85

Tables 5.27 and 5.28 present family incomes in Canada over a period of years. The first part of Table 5.27 shows that the average income (in

Chart 5.4

**Unemployment Insurance benefit payments, by type, 1980 and 1985**

Million dollars

Type of benefit

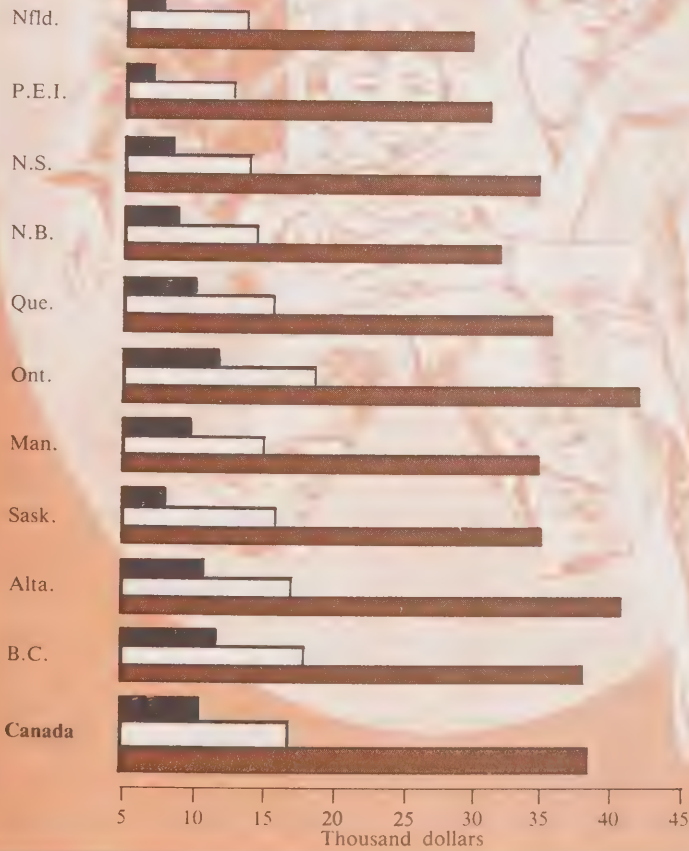


Chart 5.5

**Average incomes of families, selected years**



(In current 1985 dollars)



current dollars) rose from \$10,368 in 1971 to \$38,059 in 1985, but these changes do not reflect the decrease in the purchasing power of the dollar. The second part of Table 5.27 and Table 5.28 take this into account and give the average income in constant 1985 dollars.

In 1985, average family incomes ranged from approximately \$30,000 (Newfoundland and Prince Edward Island at \$29,629 and \$30,943, respectively) to over \$40,000 (Alberta and Ontario, at \$40,736 and \$41,775, respectively). Ontario and Alberta had average family incomes above the national average.

Table 5.30 presents historical quintile data for families, unattached individuals and all units (families and unattached individuals combined). In 1985, the upper 20% of all families (those with incomes in excess of \$53,400) received 39.4% of income, while the lowest 20% (incomes below \$17,834) received 6.3%. The median or mid-point income was \$34,076.

Table 5.31 indicates the incidence of low income among families and unattached individuals and compares selected characteristics of families and unattached individuals with low income vis-à-vis those with higher incomes. In 1985, the incidence of low income among families (or the percentage of families below the low income cut-offs) was 13.3% and among unattached individuals it was 36.8%.

By age and sex of head, families headed by females under 65 years of age (the majority of them single-parent families) had the highest incidence of low income at 46.7% among all families; for unattached individuals, females under 65 years of age had the highest rate at 51.0%.

## 5.9 Family spending

Household surveys of family spending provide consumer information that can be related to characteristics such as geographic location, family size and income level.

A primary use of such surveys is to provide information for constructing, reviewing and revising the weights of the Consumer Price Index. Initially these small-scale sample expenditure surveys, carried out in selected Canadian urban centres since 1953, were designed to follow changes in the patterns of a well-defined group of middle-income urban families known as the "target group" of the Consumer Price Index. Demand for expenditure statistics to serve other needs of government, business, welfare organizations and academic research has resulted in a widening in the scope and size of the surveys.

The most recent survey, carried out in February and March 1985, refers to calendar year 1984. This survey covered only selected cities. The most recent national survey is for 1982.

### 5.9.1 Family (spending unit) concept

In the family expenditure surveys, the family or spending unit is defined as a group of persons dependent on a common or pooled income for major items of expense and living in the same dwelling, or one financially independent individual living alone. In most cases, the spending units of two or more are persons related by blood, marriage or adoption, and are thus consistent with the economic family definition used in surveys of family income. However, there are far fewer unattached individuals on the spending unit basis, since many unrelated persons form multi-person spending units. In fact, overall, the spending unit is much closer to a household. For 1982 only about 1% of households had more than one spending unit.

### 5.9.2 Family expenditure patterns

Income is the most influential of all factors bearing on most items of family spending.

**Expenditure trends, 1969-84.** Between 1969 and 1984 seven surveys of family expenditures were conducted. Of these, three had near national coverage — including both urban and rural areas in the 10 provinces — while the other four covered only a group of selected cities. Since the selected cities are also identified in the national surveys, two sets of expenditure trends can be identified: a national series and a selected city series. Patterns of family expenditures on a national basis are shown in Table 5.32, while patterns on a selected city basis are shown in Table 5.33. Three broad conclusions can be drawn from Tables 5.32 and 5.33: over the 15-year period, changes in average spending patterns were quite marked; variation in spending patterns for a given year across income groups was even more marked; and given income, spending patterns based on those families and unattached individuals living in selected major cities were not very different from the patterns derived on a national basis.

Some qualifications, following, with respect to these conclusions are necessary. Based on the selected city series, over the 15-year period the share of total expenditure spent on food fell from 17.9% to 14.6%, clothing from 8.8% to 6.3%, and health care from 3.3% to 1.9%; while the share for shelter rose from 16.8% to 17.7%, miscellaneous from 1.4% to 2.6% and personal taxes from 13.7% to 18.6%. The share for



transportation remained relatively constant. A similar set of changes were evident in the national series. Some differences in the magnitude of the changes could be seen by considering the shares of total expenditure excluding personal taxes. For example, the share spent on food fell from 20.7% to 17.9% while the share spent on shelter rose from 19.4% to 21.7%, and even the share for transportation rose from 13.5% to 14.4%.

Across year variation in expenditure patterns were, however, small in relation to between-income-group variation in a particular year. Tables 5.32 and 5.33 show this variation by broad income classes for 1982. Both show that the share for food and shelter was almost halved going from the lowest to the highest income group, from about 24% to less than 12% for food, and from about 30% to 14% for shelter, while the share for personal taxes increased from less than 1% to about 27% of total expenditure.

Differences in patterns of expenditure within the same income class between the selected city and national series were, however, very small except for shelter and transportation. For shelter the share of total expenditures for those living in the selected cities were higher than nationally and more particularly in the lower income groups, whereas for transportation the share was lower in the selected cities and again particularly in the lower income groups.

Other factors were involved in all of these comparisons. For example, average family size fell throughout most of the period, it was higher in each successive income group, and within the same income group it was lower in the selected cities than nationally. The average age of head has not changed much over time, but it does vary across income classes. Incidence of home and automobile ownership also vary widely

across income groups, and within income groups are lower for the selected cities than nationally, particularly in the lower income classes.

The expenditure patterns also reflected increases in real incomes and differences in price changes between expenditure groups. Over the 15-year period average incomes as reported in the Survey of Consumer Finance nearly quadrupled (390%), whereas average prices as measured by the all items Consumer Price Index slightly more than trebled (308%). Real incomes, thus, increased by about 27%, but mostly in the period up to 1976. Differences in price changes between groups were also quite marked. Average food prices, for example, were about three and a half times higher (352%) in 1984 compared to 1969, whereas the average prices of clothing goods and services had only little more than doubled (223%). The latter, at least partially, explained the apparent fall in the expenditure share for clothing.

Tables 5.32 and 5.33 show the expenditure patterns in a summary form, while many of the more interesting changes appear in more disaggregated series. For example, within food, purchases from restaurants took an increasing share of total expenditure over the period and, unlike food purchased from stores, tends to be either a fairly constant share across income groups or even a slightly rising trend. The share for energy categories, on the other hand (fuel, electricity and gasoline), which were subject to some of the highest price increases, were also influenced by conversion and conservation measures, and did not change very much. Other changes included the high expenditures on child care.

More detailed information is provided in the *Family Expenditure in Canada* publications and in unpublished tables.

#### Sources

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- 5.1.2, 5.7.2 Public Affairs, Canada Employment and Immigration Commission.
- 5.5.1, 5.8 - 5.9 Household Surveys Division, Statistics Canada.
- 5.5.2 - 5.5.3 Labour Force Activity Section, Statistics Canada.
- 5.6.1 - 5.6.3 Labour Division, Statistics Canada.
- 5.7.1 Labour Division, Statistics Canada; Public Affairs, Canada Employment and Immigration Commission.
- 5.7.3 Occupational Safety and Health Branch, Department of Labour.

## TABLES

.. not available  
 ... not appropriate or not applicable  
 — nil or zero  
 -- too small to be expressed

e estimate  
 p preliminary  
 r revised  
 certain tables may not add due to rounding

### 5.1 Labour force characteristics, annual averages, 1981-86

Year	Population <sup>1</sup> '000	Labour force '000	Employed '000	Unemployed '000	Participation rate %	Unemployment rate %
1981	18,375	11,904	11,006	898	64.8	7.5
1982	18,664	11,958	10,644	1,314	64.1	11.0
1983	18,917	12,183	10,734	1,448	64.4	11.9
1984	19,148	12,399	11,000	1,399	64.8	11.3
1985	19,372	12,639	11,311	1,328	65.2	10.5
1986	19,594	12,870	11,634	1,236	65.7	9.6

<sup>1</sup> Persons 15 years of age and over, excluding inmates of institutions, full-time members of the Canadian Armed Forces, residents of Yukon and Northwest Territories and residents of Indian reserves.

### 5.2 Employment and unemployment, by sex and age, 1981-86

Age group and sex	Employed					
	1981	1982	1983	1984	1985	1986
Total	100.0	100.0	100.0	100.0	100.0	100.0
Men	59.6	58.8	58.1	57.9	57.5	57.2
Women	40.4	41.2	41.9	42.1	42.5	42.8
Age 15-24	24.2	22.5	21.8	21.6	21.1	20.8
Men	12.9	11.6	11.1	11.2	10.9	10.8
Women	11.4	10.9	10.6	10.4	10.2	10.0
Age 25 +	75.8	77.5	78.2	78.4	78.9	79.2
Men	46.7	47.2	47.0	46.7	46.6	46.4
Women	29.0	30.3	31.2	31.7	32.2	32.8
	Unemployed					
	1981	1982	1983	1984	1985	1986
Total	100.0	100.0	100.0	100.0	100.0	100.0
Men	55.0	59.2	59.3	57.3	56.5	55.8
Women	45.0	40.8	40.7	42.7	43.5	44.2
Age 15-24	45.4	42.2	40.0	37.0	35.6	35.1
Men	25.9	25.2	23.8	21.2	20.7	20.1
Women	19.4	17.0	16.2	15.8	14.9	15.0
Age 25 +	54.6	57.8	60.0	63.0	64.4	64.9
Men	29.2	34.0	35.5	36.1	35.8	35.7
Women	25.5	23.8	24.5	26.9	28.6	29.2

## 5.3 Employment by sex, age and participation rate, 1981-86 ✓

Employed	Annual averages ('000)					
	1981	1982	1983	1984	1985	1986
Total	11,006	10,644	10,734	11,000	11,311	11,634
Men	6,559	6,254	6,240	6,367	6,508	6,657
Women	4,447	4,390	4,495	4,633	4,804	4,977
Age 15-24	2,668	2,398	2,337	2,374	2,389	2,417
Men	1,416	1,235	1,196	1,232	1,232	1,258
Women	1,251	1,164	1,141	1,142	1,157	1,159
Age 25+	8,338	8,245	8,397	8,626	8,923	9,217
Men	5,142	5,019	5,044	5,135	5,276	5,399
Women	3,196	3,226	3,354	3,492	3,647	3,818
Participation rate (%)						
	1981	1982	1983	1984	1985	1986
Total	64.8	64.1	64.4	64.8	65.2	65.7
Men	78.4	77.0	76.7	76.6	76.7	76.7
Women	51.7	51.7	52.6	53.5	54.3	55.1
Age 15-24	67.7	65.8	66.1	66.8	67.4	68.6
Men	72.3	69.3	69.2	69.9	70.1	71.5
Women	63.2	62.3	62.8	63.6	64.6	65.6
Age 25+	63.8	63.5	63.9	64.2	64.6	64.9
Men	80.5	79.5	79.1	78.6	78.6	78.2
Women	48.1	48.5	49.6	50.6	51.6	52.4

## 5.4 Employment by province, 1981-86

Province	Annual averages ('000)					
	1981	1982	1983	1984	1985	1986
Newfoundland	179	174	174	176	176	181
Prince Edward Island	47	45	48	49	51	52
Nova Scotia	322	313	320	337	337	344
New Brunswick	253	243	247	248	258	267
Quebec	2,726	2,584	2,642	2,722	2,804	2,866
Ontario	4,171	4,067	4,096	4,243	4,402	4,555
Manitoba	461	454	460	472	480	493
Saskatchewan	425	426	436	439	452	457
Alberta	1,152	1,132	1,115	1,114	1,123	1,146
British Columbia	1,270	1,204	1,197	1,202	1,228	1,274
Participation rate (%)						
	1981	1982	1983	1984	1985	1986
Newfoundland	52.6	52.1	52.1	52.9	53.0	53.0
Prince Edward Island	58.7	57.8	60.2	60.2	61.9	62.3
Nova Scotia	57.3	57.0	57.4	59.3	58.8	59.3
New Brunswick	56.2	55.0	55.5	55.1	56.8	57.5
Quebec	61.5	60.0	60.9	61.5	62.2	62.4
Ontario	67.6	67.3	67.1	67.4	68.0	68.5
Manitoba	64.8	64.9	65.6	65.7	65.8	66.4
Saskatchewan	63.5	63.9	65.2	65.1	66.4	66.9
Alberta	72.3	71.4	71.6	72.1	71.9	72.1
British Columbia	65.1	64.3	64.1	64.0	64.3	65.1

## 5.5 Unemployment by sex, age and rate, 1981-86

Age group and sex	Unemployed ('000)					
	1981	1982	1983	1984	1985	1986
Total	898	1,314	1,448	1,399	1,328	1,236
Men	494	778	859	802	750	670
Women	404	537	590	598	578	566
Age 15-24	407	555	579	518	473	434
Men	233	331	345	297	275	249
Women	175	224	234	221	198	185
Age 25 +	491	759	869	882	855	802
Men	262	447	514	505	475	441
Women	229	313	355	377	380	361
	Rate (%)					
	1981	1982	1983	1984	1985	1986
Total	7.5	11.0	11.9	11.3	10.5	9.6
Men	7.0	11.1	12.1	11.2	10.3	9.4
Women	8.3	10.9	11.6	11.4	10.7	9.9
Age 15-24	13.2	18.8	19.9	17.9	16.5	15.2
Men	14.1	21.1	22.4	19.4	18.2	16.5
Women	12.3	16.1	17.0	16.2	14.6	13.8
Age 25 +	5.6	8.4	9.4	9.3	8.7	8.0
Men	4.8	8.2	9.2	8.9	8.3	7.6
Women	6.7	8.8	9.6	9.7	9.4	8.6

## 5.6 Unemployment by province, 1981-86

Province	Annual averages ('000)						Rate (%)					
	1981	1982	1983	1984	1985	1986	1981	1982	1983	1984	1985	1986
Nfld.	29	35	40	45	48	45	13.9	16.8	18.8	20.5	21.3	20.0
PEI	6	7	7	7	8	8	11.2	12.9	12.2	12.8	13.2	13.4
NS	36	47	49	51	54	53	10.2	13.2	13.2	13.1	13.8	13.4
NB	33	40	43	44	46	45	11.5	14.0	14.8	14.9	15.2	14.4
Que.	314	413	427	400	376	356	10.3	13.8	13.9	12.8	11.8	11.0
Ont.	293	440	474	423	385	342	6.6	9.8	10.4	9.1	8.0	7.0
Man.	29	42	48	43	43	41	5.9	8.5	9.4	8.3	8.1	7.7
Sask.	21	28	35	38	40	38	4.7	6.2	7.4	8.0	8.1	7.7
Alta.	46	95	134	140	126	125	3.8	7.7	10.8	11.2	10.1	9.8
BC	91	166	192	208	203	183	6.7	12.1	13.8	14.7	14.2	12.6

## 5.7 Change in number of employees by occupation group (thousands)

Occupation	1981	1982	Percentage change 1981-82	1986 <sup>1</sup>	Percentage change 1982-85
Managerial, administrative	892	899	0.8	1,390	54.6
Natural sciences, engineering and mathematics	409	384	-6.1	403	4.9
Social sciences	157	174	10.8	191	9.8
Religion	26	28	7.7	35	25.0
Teaching	457	458	0.2	511	11.6
Medicine and health	503	523	4.0	574	9.8
Art, literature and recreation	162	159	-1.9	192	20.8
Clerical	1,946	1,886	-3.1	1,928	2.2
Sales	1,132	1,120	-1.1	1,119	-0.1
Service	1,480	1,477	-0.2	1,572	6.4



### 5.7 Change in number of employees by occupation group (thousands) (concluded)

Occupation	1981	1982	Percentage change 1981-82	1986 <sup>1</sup>	Percentage change 1982-85
Farming, horticultural and animal-husbandry	506	481	-4.9	488	1.5
Fishing, hunting and trapping	33	33	—	36	9.1
Forestry and logging	60	51	-15.0	53	3.9
Mining and quarrying	78	61	-21.8	61	—
Processing	390	366	-6.2	357	-2.5
Machining	273	239	-12.5	235	-1.7
Product fabricating, assembling and repairing	1,006	913	-9.2	985	7.9
Construction trades	665	595	-10.5	639	7.4
Transport equipment operating	413	402	-2.7	434	8.0
Material handling	285	257	-9.8	272	5.8
Other crafts and equipment operating	134	139	3.7	159	14.4
Occupations, n.e.s.	—	—	—	—	—
Occupations not stated	—	—	—	—	—
All occupations	11,006	10,644	-3.3	11,634	9.3

<sup>1</sup> 1986 LSF data coded using the 1980 Standard Occupation Classification System. Data prior to 1984 was coded using the 1971 Standard Occupation Classification System.

### 5.8 Intended occupations of immigrants

Intended occupation	1982	1983	1984	1985
<b>Workers</b>				
Entrepreneurs	449	569	1,032	1,504
Management	3,566	1,934	1,529	1,497
Natural sciences	7,800	2,749	2,059	2,097
Social sciences	616	395	300	357
Religion	471	493	441	396
Teaching	1,733	1,212	1,187	1,263
Medicine and health	2,987	1,609	1,436	1,524
Artistic, literary and performing arts	1,085	673	645	707
Sports and recreation	117	86	77	87
Clerical, etc.	6,157	3,540	3,150	3,087
Sales	2,087	1,499	1,536	1,475
Service	4,195	3,816	5,235	5,279
Farming, horticultural and animal-husbandry	2,187	1,419	1,170	1,050
Fishing, hunting, trapping, etc.	55	50	65	112
Forestry and logging	23	22	16	20
Mining and quarrying including oil and gas	86	46	56	44
Processing	1,058	655	785	804
Machining, etc.	2,168	982	972	969
Product fabricating, assembling and repairing	5,747	3,641	4,306	4,034
Construction trades	2,124	1,555	1,543	1,660
Transport equipment operating	777	618	568	591
Material handling and related	363	244	330	344
Other crafts and equipment operating	305	191	180	183
Others	9,210	9,111	—	—
Not stated	106	—	—	—
Not elsewhere classified	—	—	9,882	9,369
<b>Total, workers</b>	<b>55,472</b>	<b>37,109</b>	<b>38,500</b>	<b>38,453</b>
<b>Non-workers</b>				
Spouse	17,808	15,493	14,541	13,041
Children	12,964	7,372	7,087	6,522
Others	34,903	29,183	28,111	26,286
<b>Total, non-workers</b>	<b>65,675</b>	<b>52,048</b>	<b>49,739</b>	<b>45,849</b>
<b>Total, immigrants</b>	<b>121,147</b>	<b>89,157</b>	<b>88,239</b>	<b>84,302</b>

### 5.9 Union membership in Canada, 1971-86

Year	Members '000	Union membership as percentage of civilian labour force	Union membership as percentage of non-agricultural paid workers
1971	2,231	26.8	33.6
1972	2,388	27.8	34.6
1973	2,591	29.2	36.1
1974	2,732	29.4	35.8
1975	2,884	29.8	36.9
1976	3,042	30.6	37.3
1977	3,149	31.0	38.2
1978	3,278	31.3	39.0
1979	..	..	..
1980	3,397	30.5	37.6
1981	3,487	30.6	37.4
1982	3,617	31.4	39.0
1983	3,563	30.6	40.0
1984	3,651	30.6	39.6
1985	3,666	30.2	39.0
1986	3,730	29.7	37.7

### 5.10 Union membership, by type of union and affiliation, as at January 1983-86

Type and affiliation	1983				1984			
	Unions No.	Locals No.	Membership		Unions No.	Locals No.	Membership	
			No.	%			No.	%
International unions								
AFL-CIO/CLC	46	..	851,341	23.9	44	2,747	848,232	23.2
AFL-CIO/CFL	10	..	213,301	6.0	10	456	217,697	6.0
CLC only	5	..	134,008	3.8	4	183	134,897	3.7
AFL-CIO only	7	..	167,515	4.7	7	241	157,540	4.3
Unaffiliated unions	6	..	104,268	2.9	6	164	103,327	2.8
Sub-total, international unions	74	..	1,470,433	41.3	71	3,791	1,461,693	40.0
National unions								
CLC <sup>1</sup>	27	..	1,018,792	28.6	27	5,750	1,058,371	29.0
CNTU	10	..	212,646	6.0	9	1,507	209,493	5.7
CCU	20	..	38,684	1.1	21	136	40,622	1.1
CSD	3	..	21,826	0.6	3	188	21,785	0.6
Unaffiliated unions	86	..	654,034	18.3	91	3,815	719,485	19.7
Sub-total, national unions	146	..	1,945,982	54.6	151	11,396	2,049,756	56.1
Directly chartered unions								
CSD	287	...	35,000	1.0	303	...	33,000	0.9
CLC	74	...	8,909	0.2	66	...	8,178	0.2
CNTU	5	...	724	2	5	...	591	2
Sub-total, directly chartered unions	366	...	44,633	1.2	374	...	41,769	1.1
Independent local organizations	240	...	101,751	2.9	203	...	97,286	2.7
Total	826	..	3,562,799	100.0	799	15,187	3,650,504	100.0
	1985				1986			
	Unions No.	Locals No.	Membership		Unions No.	Locals No.	Membership	
No.			%	No.			%	
International unions								
AFL-CIO/CLC	43	2,762	841,067	22.9	42	2,775	866,070	23.2
AFL-CIO/CFL	10	443	209,881	5.7	10	431	206,642	5.6
CLC only	3	135	145,192	4.0	3	132	146,511	3.9
AFL-CIO only	6	227	144,626	4.0	6	211	134,915	3.6
Unaffiliated unions	6	164	104,067	2.8	6	156	104,725	2.8
Sub-total, international unions	68	3,731	1,444,833	39.4	67	3,705	1,458,863	39.1

### 5.10 Union membership, by type of union and affiliation, as at January 1983-86 (concluded)

Type and affiliation	1985				1986			
	Unions No.	Locals No.	Membership		Unions No.	Locals No.	Membership	
			No.	%			No.	%
National unions								
CLC <sup>1</sup>	50	6,188	1,125,265	30.7	47	6,257	1,145,164	30.7
CNTU	9	1,660	210,505	5.8	9	1,717	218,300	5.9
CEQ	...	...	...	...	9	223	91,251	2.4
CCU	20	130	37,155	1.0	20	124	35,683	1.0
CSD	3	156	18,651	0.5	3	153	18,267	0.5
CFL	...	...	...	...	2	45	2,180	0.1
Unaffiliated unions	108	4,203	703,889	19.2	129	4,152	621,104	16.6
Sub-total, national unions	190	12,337	2,095,465	57.2	219	12,671	2,131,949	57.2
Directly chartered unions								
CSD	227	...	21,234	0.6	224	...	17,700	0.5
CLC	63	...	8,200	0.2	55	...	6,600	0.2
CNTU	5	...	512	2	6	...	565	2
Sub-total, directly chartered unions	295	...	29,946	0.8	285	...	24,865	0.7
Independent local organizations	209	...	95,444	2.6	273	...	114,346	3.0
Total	762	16,068	3,665,688	100.0	844	16,376	3,730,023	100.0

<sup>1</sup> Includes 42,000 construction workers who are members of organizations chartered by the National Building Trades Department of the CLC.

<sup>2</sup> Less than 0.1%.

### 5.11 Major wage settlements, effective wage increases<sup>1</sup> in base rates

Year and sector	Average annual percentage increases				
	1st quarter	2nd quarter	3rd quarter	4th quarter	Annual
1983					
All industries					
Agreements without COLA	6.7	5.9	5.7	4.1	5.6
Agreements with COLA	2.1	1.7	7.0	5.0	2.7
Commercial sector					
Agreements without COLA	6.4	6.3	6.1	4.2	5.6
Agreements with COLA	3.3	4.9	7.1	5.0	5.0
Non-commercial sector					
Agreements without COLA	7.0	5.7	5.5	4.0	5.6
Agreements with COLA	1.8	0.9	2.4	6.6	1.5
1984					
All industries					
Agreements without COLA	3.9	2.9	3.0	4.5	3.5
Agreements with COLA	3.3	4.4	3.3	4.2	4.1
Commercial sector					
Agreements without COLA	4.0	2.4	3.0	3.7	3.2
Agreements with COLA	3.4	4.6	3.3	4.3	4.2
Non-commercial sector					
Agreements without COLA	3.8	3.4	3.0	4.7	3.8
Agreements with COLA	2.8	1.6	—	2.6	2.3
1985					
All industries					
Agreements without COLA	3.8	3.5	3.7	3.7	3.7
Agreements with COLA	2.6	3.5	4.0	4.5	3.5
Commercial sector					
Agreements without COLA	3.4	3.7	3.3	3.1	3.4
Agreements with COLA	2.6	4.1	4.0	5.3	3.7
Non-commercial sector					
Agreements without COLA	4.0	3.3	4.3	3.9	3.9
Agreements with COLA	—	2.9	4.5	2.7	2.9

5.11 Major wage settlements, effective wage increases<sup>1</sup> in base rates (concluded)

Year and sector	Average annual percentage increases				Annual
	1st quarter	2nd quarter	3rd quarter	4th quarter	
1986					
All industries					
Agreements without COLA	3.6	3.7	3.2	3.3	3.5
Agreements with COLA	3.5	3.4	2.5	3.4	3.1
Commercial sector					
Agreements without COLA	3.8	3.8	2.5	1.9	2.9
Agreements with COLA	3.6	3.4	3.5	3.6	3.5
Non-commercial sector					
Agreements without COLA	3.4	3.7	4.2	4.4	3.9
Agreements with COLA	2.8	4.7	1.9	2.4	2.0

<sup>1</sup> The effective wage increase measures all contractually stipulated wage increases including COLA. The COLA formulae are quantified using a combination of the latest CPI data available and/or a projected CPI estimate of 4%.

## 5.12 Strikes and lockouts, by industry and jurisdiction

Year, industry and jurisdiction	Strikes and lockouts beginning during year	Strikes and lockouts in existence during year		
		Strikes and lockouts	Workers involved	Person-days lost
1983				
Industry				
Agriculture	1	2	26	770
Forestry	4	5	1,326	13,890
Fishing and trapping	1	1	3,000	3,000
Mining	11	12	11,889	178,390
Manufacturing	280	311	64,206	1,385,290
Construction	22	24	9,394	243,680
Transportation and utilities	56	63	15,257	275,000
Trade	61	74	14,831	251,690
Finance	13	17	606	9,600
Service	95	104	168,376	1,770,710
Public administration	32	32	40,398	311,940
Total	576	645	329,309	4,443,960
Jurisdiction				
Newfoundland	20	21	9,548	177,550
Prince Edward Island	—	—	—	—
Nova Scotia	10	12	5,739	250,200
New Brunswick	12	12	1,332	12,310
Quebec	217	247	155,893	2,313,030
Ontario	181	200	29,957	760,050
Manitoba	8	10	643	12,430
Saskatchewan	9	10	1,239	28,820
Alberta	10	10	1,319	15,440
British Columbia	78	84	114,694	769,390
Federal public service <sup>1</sup>	—	—	—	—
Federal industries <sup>2</sup>	31	39	8,945	104,740
1984				
Industry				
Agriculture	2	2	123	190
Forestry	9	9	952	9,580
Fishing and trapping	—	—	—	—
Mining	8	9	2,029	37,120
Manufacturing	317	343	107,973	2,356,090
Construction	36	36	19,500	212,700
Transportation and utilities	39	48	20,091	550,130
Trade	91	101	5,721	188,260
Finance	19	23	559	28,210
Service	100	112	26,417	418,180
Public administration	33	34	3,390	71,360
Total	654	717	186,755	3,871,820



### 5.12 Strikes and lockouts, by industry and jurisdiction (concluded)

Year, industry and jurisdiction	Strikes and lockouts beginning during year	Strikes and lockouts in existence during year		
		Strikes and lockouts	Workers involved	Person-days lost
<b>Jurisdiction</b>				
Newfoundland	16	16	3,639	191,970
Prince Edward Island	—	—	—	—
Nova Scotia	10	11	947	43,000
New Brunswick	24	25	3,636	11,280
Quebec	292	323	41,711	1,115,730
Ontario	192	209	79,586	1,414,340
Manitoba	8	8	1,766	61,290
Saskatchewan	9	11	1,420	13,840
Alberta	34	34	12,388	79,230
British Columbia	58	65	38,769	825,200
Federal public service <sup>1</sup>	2	2	24	60
Federal industries <sup>2</sup>	9	13	2,869	115,880
<b>1985</b>				
<b>Industry</b>				
Agriculture	1	1	16	290
Forestry	8	8	1,409	8,120
Fishing and trapping	—	—	—	—
Mining	11	12	6,309	90,180
Manufacturing	326	356	66,075	1,578,010
Construction	14	14	992	11,210
Transportation and utilities	88	96	38,763	478,900
Trade	116	129	23,196	467,880
Finance	15	18	1,137	106,920
Service	151	160	15,831	383,900
Public administration	28	31	5,999	55,300
<b>Total</b>	<b>758</b>	<b>825</b>	<b>159,727</b>	<b>3,180,710</b>
<b>Jurisdiction</b>				
Newfoundland	14	16	3,283	93,820
Prince Edward Island	2	2	212	9,140
Nova Scotia	21	21	1,471	19,510
New Brunswick	21	21	4,988	61,860
Quebec	229	265	38,720	1,123,530
Ontario	284	302	72,723	1,232,170
Manitoba	21	21	1,916	33,580
Saskatchewan	27	27	5,131	56,690
Alberta	29	29	2,790	100,270
British Columbia	68	74	8,929	125,910
Federal public service <sup>1</sup>	1	2	170	7,320
Federal industries <sup>2</sup>	41	45	19,394	316,910

<sup>1</sup> Covered under the Public Service Staff Relations Act.

<sup>2</sup> Covered under the Canada Labour Code: Part V.

### 5.13 Estimated number of employees and estimated average weekly earnings<sup>1</sup>, for firms of all sizes, by industry for Canada and by industrial aggregate by province, 1983-85

Item	Number of employees ('000)			Average weekly earnings <sup>1</sup> (\$)		
	1983 <sup>2</sup>	1984	1985	1983	1984	1985
<b>Industry group (SIC 1970)</b>						
Forestry	57.4	57.0	55.0	516.36	540.26	543.64
Mines, quarries and oil wells	148.4	148.6	156.6	625.83	664.56	697.90
Manufacturing	1,738.6	1,669.7	1,703.9	440.67	465.66	488.17
Construction	356.2	342.5	384.3	488.62	491.24	505.07
Transportation, communications and other utilities	790.0	796.5	804.5	500.31	521.38	539.73
Trade	1,490.0	1,554.5	1,621.3	282.77	293.64	304.28
Finance, insurance and real estate	518.8	535.9	556.6	398.96	417.83	432.54
Commercial, business and personal service industries	2,823.4	2,890.9	3,051.0	333.77	345.28	357.07
Public administration	659.1	657.9	662.0	490.19	512.86	526.61
Industrial aggregate <sup>3</sup>	8,581.9	8,653.6	8,995.2	390.55	405.22	419.27

### 5.13 Estimated number of employees and estimated average weekly earnings<sup>1</sup>, for firms of all sizes, by industry for Canada and by industrial aggregate by province, 1983-85 (concluded)

Item	Number of employees ('000)			Average weekly earnings <sup>1</sup> (\$)		
	1983 <sup>2</sup>	1984	1985	1983	1984	1985
Industrial aggregate <sup>3</sup>						
Newfoundland	126.4	124.4	126.7	370.82	389.14	396.73
Prince Edward Island	29.6	29.6	29.7	314.92	324.41	338.97
Nova Scotia	241.6	249.2	254.6	342.82	360.32	376.54
New Brunswick	184.9	185.2	192.2	353.40	374.20	384.95
Quebec	2,128.2	2,149.6	2,236.8	383.85	397.57	409.74
Ontario	3,491.4	3,541.6	3,677.2	386.26	404.67	423.29
Manitoba	344.0	347.0	353.7	361.05	378.84	387.94
Saskatchewan	264.7	267.7	273.6	374.05	387.75	394.24
Alberta	821.9	813.1	875.3	429.31	439.27	445.39
British Columbia	924.5	920.2	949.3	425.23	429.52	441.38
Yukon	7.9	8.3	7.9	463.09	483.51	491.30
Northwest Territories	16.8	17.6	18.3	533.56	564.89	572.07

<sup>1</sup> Includes overtime.<sup>2</sup> Based on a 10-month average (March to December).<sup>3</sup> The industrial aggregate is the sum of all industries with the exception of agriculture, fishing and trapping, religious organizations, private households and military personnel.

### 5.14 Estimated average weekly hours and hourly earnings<sup>1</sup>, for employees paid by the hour, by industry for Canada and industrial aggregate by province, 1983-85

	Average weekly hours <sup>1</sup>			Average hourly earnings <sup>1</sup> (\$)		
	1983 <sup>2</sup>	1984	1985	1983 <sup>2</sup>	1984	1985
Industry group (SIC 1970)						
Forestry	38.8	38.8	38.5	15.04	15.70	16.17
Mines, quarries and oil wells	38.7	39.3	39.6	14.29	15.07	15.67
Manufacturing	38.4	38.5	38.8	10.59	11.16	11.59
Construction	37.1	37.4	37.8	13.84	13.75	13.88
Transportation, communications and other utilities	37.9	38.3	38.1	12.55	12.95	13.43
Trade	28.7	29.0	28.9	7.55	7.79	7.97
Commercial, business and personal service industries	27.1	27.3	27.4	8.35	8.63	8.90
Industrial aggregate <sup>3</sup>	32.5	32.5	32.5	9.91	10.22	10.52
Industrial aggregate <sup>3</sup>						
Newfoundland	35.3	35.2	34.7	8.65	8.96	9.23
Prince Edward Island	32.9	32.3	32.1	6.92	7.13	7.34
Nova Scotia	32.9	33.2	32.8	8.46	8.83	9.03
New Brunswick	33.7	33.7	33.6	8.79	9.18	9.35
Quebec	33.5	33.6	33.2	9.62	9.92	10.23
Ontario	32.9	33.0	33.1	9.54	9.99	10.39
Manitoba	31.6	31.4	31.7	9.04	9.59	9.74
Saskatchewan	29.6	29.7	29.4	9.91	10.20	10.20
Alberta	30.9	31.0	31.1	11.07	10.92	10.90
British Columbia	30.2	30.1	30.2	12.35	12.36	12.62
Yukon	32.7	33.3	31.5	12.58	13.01	12.47
Northwest Territories	35.1	35.5	34.8	13.42	13.96	14.20

<sup>1</sup> Includes overtime.<sup>2</sup> Based on a 10-month average (March to December).<sup>3</sup> The industrial aggregate is the sum of all industries with the exception of agriculture, fishing and trapping, religious organizations, private households and military personnel.

### 5.15 Total wages and salaries and supplementary labour income (million dollars)

Industry and province	1981 <sup>r</sup>	1982 <sup>r</sup>	1983	1984	1985
Industry					
Agriculture, fishing and trapping	1,517	1,641	1,742	1,828	1,924
Forestry	1,669	1,491	1,706	1,829	1,799
Mines, quarries and oil wells	5,139	5,453	5,399	5,836	6,431
Manufacturing	38,835	38,944	40,860	45,095	48,154
Construction	13,704	12,408	11,654	11,446	12,704

**5.15 Total wages and salaries and supplementary labour income (million dollars) (concluded)**

Industry and province	1981 <sup>f</sup>	1982 <sup>f</sup>	1983	1984	1985
<b>Industry (continued)</b>					
Transportation, communications and other utilities	19,151	21,288	22,072	23,607	24,913
Trade	24,027	25,151	25,905	28,263	30,552
Finance, insurance and real estate	12,710	14,018	14,764	16,285	17,430
Commercial and personal services	21,019	23,638	24,764	26,572	29,476
Education and related services	15,363	17,180	18,321	19,315	20,147
Health and welfare services	10,823	12,254	13,278	14,302	15,360
Federal administration and other government offices	5,937	7,038	7,556	8,138	8,361
Provincial administration	4,687	5,318	5,691	5,959	6,263
Local administration	3,672	4,263	4,562	4,835	5,053
<b>Total wages and salaries</b>	<b>178,253</b>	<b>190,087</b>	<b>198,273</b>	<b>213,308</b>	<b>228,568</b>
<b>Supplementary labour income</b>	<b>17,684</b>	<b>19,361</b>	<b>21,079</b>	<b>22,595</b>	<b>24,247</b>
<b>Total labour income</b>	<b>195,937</b>	<b>209,448</b>	<b>219,352</b>	<b>235,903</b>	<b>252,815</b>
<b>Province</b>					
Newfoundland	2,487	2,699	2,811	2,958	3,065
Prince Edward Island	482	537	571	615	648
Nova Scotia	4,179	4,596	4,925	5,372	5,765
New Brunswick	3,342	3,622	3,861	4,184	4,466
Quebec	43,487	45,301	46,746	50,622	54,050
Ontario	69,748	74,783	79,843	87,786	94,803
Manitoba	6,562	7,208	7,639	8,256	8,666
Saskatchewan	5,213	5,829	6,124	6,590	6,908
Alberta	19,384	21,348	21,178	21,660	23,387
British Columbia	22,748	23,396	23,786	24,375	25,890

**5.16 Help-wanted index, seasonally adjusted, annual averages 1980-85 and by month 1984 and 1985 (1981 = 100)**

Year and month	Atlantic region	Quebec	Ontario	Prairie region	British Columbia	Canada
1980	109	110	88	90	70	94
1981	100	100	100	99	99	99
1982	66	48	52	42	34	47
1983	87	52	45	29	26	44
1984	138	64	63	34	29	58
1985	173	77	87	41	32	73
<b>1984</b>						
January	101	60	54	30	29	52
February	102	63	58	31	30	53
March	117	63	57	33	30	56
April	118	57	59	34	32	54
May	130	62	59	35	39	57
June	171	71	66	34	30	62
July	206	70	64	36	28	63
August	136	67	66	35	27	59
September	141	71	67	35	29	62
October	165	62	72	38	29	63
November	80	67	67	37	27	59
December	184	60	67	33	22	60
<b>1985</b>						
January	165	67	71	37	28	64
February	184	63	77	38	25	64
March	179	67	78	38	31	69
April	226	76	81	37	27	73
May	94	77	85	41	27	68
June	117	74	84	46	28	67
July	134	76	91	43	32	71
August	156	85	95	43	33	77
September	226	77	93	43	34	79
October	162	84	93	44	35	79
November	213	83	96	39	39	84
December	216	88	95	45	39	85

5.17 Working conditions of employees in major industries<sup>1</sup>

Item	Office employees <sup>2</sup>					Non-office employees				
	1981	1982	1983	1984	1985	1981	1982	1983	1984	1985
Reporting establishments	13,435	13,307	13,351	13,898	14,232	12,235	12,191	12,307	12,688	13,036
Employees ('000)	1,338	1,351	1,361	1,401	1,444	1,602	1,523	1,597	1,601	1,659
	Office (percentage <sup>3</sup> )					Non-office (percentage <sup>3</sup> )				
HOURS OF WORK										
Less than 35 hours	3	3	3	3	3	—	—	—	—	—
35 hours	28	29	28	27	29	3	3	3	3	4
Over 35 and under 37½ hours	14	15	14	15	14	2	2	3	4	4
37½ hours	45	43	44	44	43	8	10	9	10	10
Over 37½ and under 40 hours	4	5	5	2	2	6	7	6	7	7
40 hours	4	5	5	9	9	72	68	69	66	66
Over 40 hours	—	—	—	—	—	7	6	7	6	6
PAID HOLIDAYS										
Less than 10 days	8	7	6	7	7	17	17	14	15	16
10 days	16	16	17	14	15	14	15	16	15	16
11 days	50	49	46	48	47	39	38	40	39	38
More than 11 days	25	27	30	31	30	31	31	30	32	31
VACATIONS WITH PAY <sup>4</sup> (number of weeks and service required)										
3 weeks - with service:	92	92	92	92	92	93	92	92	92	92
Less than 3 years	43	44	47	48	48	25	24	27	26	27
3 to 5 years	46	45	43	42	42	59	62	58	59	59
More than 5 years	3	3	2	2	2	8	7	7	6	6
4 weeks - with service:	97	97	98	98	97	90	90	91	90	90
Less than 10 years	29	32	34	34	35	23	30	34	32	33
10 years	43	46	50	49	49	29	29	31	33	35
More than 10 years	26	19	14	14	13	39	30	28	25	21
5 weeks - with service:	85	89	89	89	89	75	76	78	77	75
Less than 20 years	17	23	24	23	26	21	31	31	30	30
20 years	28	30	44	44	43	27	28	32	35	34
More than 20 years	40	35	20	20	20	27	17	15	12	11
6 weeks - with service:	25	28	29	32	31	36	41	44	44	42
Less than 25 years	6	7	6	7	8	10	11	11	11	11
25 years	8	9	8	11	9	9	12	12	12	11
More than 25 years	11	13	14	15	15	17	16	20	21	19
7 weeks - with service:	2	3	3	6	3	5	10	11	13	12
Less than 25 years	1	1	1	—	1	2	3	3	2	2
25 years	—	1	—	1	1	1	3	2	2	1
More than 25 years	1	1	2	5	2	2	4	6	9	9

Note: Labour Canada has discontinued the Wages and Working Conditions Survey. The last one was in October 1985.

<sup>1</sup> Includes all major industries except agriculture, fishing, hunting, trapping, construction and the non-logging part of forestry.

<sup>2</sup> Supervisory, professional and technical staff, and personnel engaged in clerical, accounting, secretarial, sales, executive and administrative activities.

<sup>3</sup> Proportion of employees in establishments reporting specific provisions to the total number of employees in all reporting establishments.

<sup>4</sup> Legislation in all jurisdictions in Canada entitle employees to at least 2 weeks annual vacation with pay generally after 1 year of employment.

## 5.18 Working conditions of employees in manufacturing industries

Item	Office employees <sup>1</sup>					Non-office employees				
	1981	1982	1983	1984	1985	1981	1982	1983	1984	1985
Reporting establishments	4,755	4,596	4,441	4,601	4,637	4,742	4,582	4,447	4,587	4,628
Employees ('000)	248	236	232	232	235	716	640	631	645	652
	Office (percentage <sup>2</sup> )					Non-office (percentage <sup>2</sup> )				
HOURS OF WORK										
Less than 35 hours	1	2	2	1	1	—	—	—	—	—
35 hours	22	21	20	21	35	2	3	3	3	3
Over 35 and under 37½ hours	10	11	10	11	11	2	2	2	2	2
37½ hours	42	39	41	40	40	3	3	3	4	3
Over 37½ and under 40 hours	5	5	5	5	5	2	2	2	2	2
40 hours	19	22	22	21	22	83	82	82	81	81
Over 40 hours	—	—	—	—	—	7	7	9	9	—



## 5.18 Working conditions of employees in manufacturing industries (concluded)

Item	Office (percentage <sup>2</sup> )					Non-office (percentage <sup>2</sup> )				
	1981	1982	1983	1984	1985	1981	1982	1983	1984	1985
<b>PAID HOLIDAYS</b>										
Less than 10 days	14	14	9	9	10	18	15	12	13	12
10 days	15	13	14	13	12	15	13	13	12	12
11 days	25	26	29	27	27	24	26	29	27	25
More than 11 days	45	47	47	51	51	45	46	46	48	51
<b>VACATIONS WITH PAY<sup>3</sup></b> (number of weeks and service required)										
3 weeks - with service:	99	99	98	99	99	96	96	97	96	96
Less than 4 years	13	16	18	35	38	9	11	10	23	29
4 to 5 years	76	75	76	57	55	74	74	76	62	56
More than 5 years	8	7	5	6	4	12	11	10	10	10
4 weeks - with service:	95	96	96	96	96	91	91	91	91	91
Less than 10 years	14	20	21	22	22	15	23	22	22	23
10 years	26	28	31	33	38	19	21	22	25	33
More than 10 years	55	47	44	42	36	56	45	45	44	34
5 weeks - with service:	83	84	85	84	84	75	76	76	75	75
Less than 20 years	18	21	23	24	25	19	23	24	23	23
20 years	37	40	40	41	40	33	34	35	36	37
More than 20 years	28	22	21	18	19	24	18	17	16	14
6 weeks - with service:	41	46	46	45	44	39	42	42	40	39
Less than 25 years	6	8	8	8	7	8	11	10	9	8
25 years	15	18	17	18	19	11	14	14	14	14
More than 25 years	21	19	21	20	19	20	18	18	18	17
7 weeks - with service:	2	3	6	9	8	8	15	13	14	13
Less than 25 years	1	1	—	—	—	2	3	—	—	—
25 years	1	1	2	2	2	3	10	3	2	2
More than 25 years	—	1	4	7	6	2	2	10	12	11

<sup>1</sup> Supervisory, professional and technical staff, and personnel engaged in clerical, accounting, secretarial, sales, executive and administrative activities.

<sup>2</sup> Proportion of employees in establishments reporting specific provisions to the total number of employees in all reporting establishments.

<sup>3</sup> Legislation in all jurisdictions in Canada entitle employees to at least 2 weeks annual vacation with pay generally after 1 year of employment.

## 5.19 Average wage and salary rates for selected occupations for certain metropolitan areas and cities

Occupation	Halifax-Dartmouth, NS				Saint John, NB				Montreal, Que.			
	1982	1983	1984	1985	1982	1983	1984	1985	1982	1983	1984	1985
\$ an hour												
<b>Maintenance trades</b>												
Carpenter, maintenance	9.92	10.62	11.21	11.18	10.51	11.04	11.54	11.53	11.01	11.63	12.36	12.60
Electrical repairer	11.32	12.31	13.13	13.16	13.08	14.69	14.88	15.20	12.00	12.87	13.48	13.78
Maintenance machinist	11.06	12.23	12.85	13.16	11.47	12.56	13.69	14.08	11.90	12.62	13.27	13.45
Millwright	11.28	11.77	12.32	12.69	13.81	14.91	15.77	15.35	12.03	13.00	13.42	14.02
Painter, maintenance	9.46	9.86	10.67	10.23	10.30	11.90	12.24	12.12	10.62	11.14	11.87	12.28
Plumber, maintenance	11.83	12.48	13.05	13.28	11.08	11.69	11.43	12.17	11.81	12.30	13.02	13.32
Welder, maintenance	9.90	12.21	11.28	11.80	13.85	14.30	15.27	15.15	11.47	12.20	12.77	13.05
<b>Service occupations</b>												
Cleaner, heavy duty	7.61	9.27	9.57	8.78	8.58	9.26	8.70	8.93	9.52	10.05	10.02	10.00
Security guard	5.31	5.66	6.04	6.20	5.62	5.89	6.16	6.35	6.66	6.77	7.38	7.06
Truck driver, light	7.94	8.45	9.05	8.99	8.91	9.53	10.02	10.31	9.16	9.66	9.86	10.48
Truck driver, heavy	8.90	9.28	10.29	10.86	9.45	9.92	10.08	10.42	10.74	11.41	11.86	12.32
Labourer, non-production	8.09	8.76	9.46	10.00	8.51	9.49	9.70	9.64	8.98	9.71	10.19	10.40
\$ a week												
<b>Office occupations</b>												
Accounting clerk, junior	255	269	291	300	295	317	311	326	279	296	320	328
Accounting clerk, senior	308	336	351	368	351	361	364	406	341	367	398	416
Office clerk, junior	233	254	275	281	242	266	269	293	260	279	306	315
Office clerk, intermediate	295	314	331	338	312	319	335	355	327	346	364	373
Office clerk, senior	358	379	396	405	377	385	383	404	387	406	426	435
Data entry operator, senior	291	318	329	345	326	344	403	436	316	329	303	316

### 5.19 Average wage and salary rates for selected occupations for certain metropolitan areas and cities (continued)

Occupation	Halifax-Dartmouth, NS				Saint John, NB				Montreal, Que.			
	1982	1983	1984	1985	1982	1983	1984	1985	1982	1983	1984	1985
\$ a week												
Office occupations (continued)												
Draughtsman/woman, senior	475	517	524	534	433	495	556	595	513	539	569	595
Office manager	503	543	557	566	485	525	528	528	548	575	590	605
Programmer, senior	464	518	546	570	379	422	546	556	524	546	586	598
Secretary, junior	293	317	338	347	315	333	336	348	326	336	363	366
Secretary, senior	337	361	382	386	346	361	381	399	368	381	401	413
Stenographer, senior	281	303	319	326	322	337	332	331	321	337	355	370
Telephone operator	244	260	270	285	270	278	285	304	279	294	295	306
Typist, senior	228	284	299	313	274	296	308	319	279	295	313	325
Word processor operator	263	320	336	342	250	303	297	309	303	332	346	355
Ottawa-Hull, Ont.												
					Toronto, Ont.				Winnipeg, Man.			
1982	1983	1984	1985	1982	1983	1984	1985	1982	1983	1984	1985	
\$ an hour												
Maintenance trades												
Carpenter, maintenance	10.77	11.78	12.05	12.51	10.91	11.71	11.76	12.58	11.23	11.97	12.54	12.89
Electrical repairer	12.39	13.41	14.27	14.59	12.07	12.93	13.38	13.94	12.45	13.17	13.72	13.74
Maintenance machinist	11.99	13.11	13.24	14.37	11.68	12.55	13.16	13.61	10.82	12.55	13.29	13.35
Millwright	13.22	14.45	13.76	13.95	12.15	13.20	13.81	14.37	10.23	13.05	13.41	13.41
Painter, maintenance	10.28	11.01	11.56	12.23	10.13	10.84	11.18	11.84	11.01	11.62	12.49	12.52
Plumber, maintenance	11.85	12.13	13.13	13.42	11.90	12.44	13.43	13.95	12.80	14.08	14.38	15.10
Welder, maintenance	11.34	11.94	12.62	12.94	11.05	11.98	12.56	13.00	11.68	12.07	13.03	12.66
Service occupations												
Cleaner, heavy duty	8.53	9.44	8.14	7.92	8.87	9.74	9.56	10.23	7.40	7.40	8.70	9.45
Security guard	5.38	5.84	6.05	6.30	6.34	5.54	5.79	5.82	5.81	6.13	6.25	5.88
Truck driver, light	8.30	8.57	9.13	9.32	9.13	9.52	10.06	10.64	9.32	9.86	9.95	9.88
Truck driver, heavy	10.11	10.63	11.12	11.92	10.78	11.51	11.71	12.20	10.47	10.58	11.07	11.12
Labourer, non-production	8.50	9.51	9.52	9.80	8.57	9.18	9.61	10.11	8.87	9.39	9.88	10.23
\$ a week												
Office occupations												
Accounting clerk, junior	299	319	333	345	265	288	302	317	279	305	309	312
Accounting clerk, senior	351	378	402	408	339	360	374	388	350	369	391	385
Office clerk, junior	262	285	297	312	246	269	278	291	254	287	300	301
Office clerk, intermediate	314	335	353	359	304	327	346	358	310	334	353	360
Office clerk, senior	372	395	416	420	367	396	415	423	358	383	408	405
Data entry operator, senior	317	338	363	303	308	329	338	355	316	342	319	371
Draughtsman/woman, senior	495	540	554	558	542	570	599	615	489	534	537	562
Office manager	516	544	596	605	512	545	555	559	491	531	550	553
Programmer, senior	524	555	575	600	522	569	598	626	486	522	540	555
Secretary, junior	308	332	352	371	305	325	342	360	291	319	329	335
Secretary, senior	366	388	409	415	360	383	400	420	337	365	380	388
Stenographer, senior	317	337	353	365	319	337	356	371	326	335	342	350
Telephone operator	273	292	306	325	256	269	283	299	236	257	271	284
Typist, senior	261	281	298	307	286	306	319	334	284	307	329	331
Word processor operator	310	331	351	353	312	330	347	364	295	314	332	348
Regina, Sask.												
					Edmonton, Alta.				Vancouver, BC			
1982	1983	1984	1985	1982	1983	1984	1985	1982	1983	1984	1985	
\$ an hour												
Maintenance trades												
Carpenter, maintenance	12.60	13.68	14.72	16.19	13.08	13.42	14.57	14.94	14.22	14.49	15.07	16.40
Electrical repairer	13.67	14.72	15.47	16.70	14.54	15.93	15.91	16.46	15.03	15.90	16.80	17.13
Maintenance machinist	11.79	12.87	13.03	13.87	13.14	13.97	14.27	14.61	14.91	16.32	16.93	17.19
Millwright	12.58	13.39	14.81	16.37	14.58	15.86	16.33	17.13	15.17	16.24	16.92	17.69
Painter, maintenance	11.69	13.69	...	14.73	12.54	12.51	13.08	14.08	14.38	15.79	15.95	16.47
Plumber, maintenance	...	...	16.02	16.96	14.96	16.33	16.80	18.86	14.38	15.29	15.86	16.31
Welder, maintenance	12.08	12.73	14.72	14.52	13.90	14.48	14.65	14.79	14.83	16.04	16.75	17.58
Service occupations												
Cleaner, heavy duty	9.55	9.03	8.48	8.93	9.40	11.59	9.66	10.24	11.70	12.24	10.71	10.86
Security guard	5.98	6.42	6.71	7.26	8.43	6.70	6.80	7.14	8.82	9.24	9.47	9.28
Truck driver, light	9.85	10.51	11.28	12.41	9.86	9.84	9.73	10.45	12.03	11.99	11.99	12.35
Truck driver, heavy	10.88	11.31	11.95	12.22	11.78	12.61	12.45	12.99	13.15	14.00	14.99	15.29
Labourer, non-production	9.54	10.26	11.05	12.39	9.44	10.34	10.33	9.65	11.38	11.84	12.24	12.35

### 5.19 Average wage and salary rates for selected occupations for certain metropolitan areas and cities (concluded)

Occupation	Regina, Sask.				Edmonton, Alta.				Vancouver, BC			
	1982	1983	1984	1985	1982	1983	1984	1985	1982	1983	1984	1985
\$ a week												
Office occupations												
Accounting clerk, junior	307	376	345	310	298	350	362	344	328	347	363	376
Accounting clerk, senior	368	400	420	427	431	386	407	397	378	407	422	440
Office clerk, junior	279	303	310	322	266	317	326	319	296	311	329	337
Office clerk, intermediate	310	335	350	354	296	342	351	360	338	357	375	385
Office clerk, senior	365	387	404	415	365	396	408	409	393	417	436	438
Data entry operator, senior	322	355	356	378	330	355	351	370	348	365	382	336
Draughtsman/woman, senior	505	545	551	565	556	583	581	606	575	598	619	650
Office manager	514	498	558	574	429	471	479	471	533	550	581	599
Programmer, senior	580	578	615	636	560	558	590	612	564	602	616	635
Secretary, junior	348	347	381	407	360	367	371	376	341	355	371	381
Secretary, senior	380	424	430	456	384	397	410	411	392	412	433	442
Stenographer, senior	337	364	387	401	353	373	386	386	338	365	383	392
Telephone operator	281	317	323	340	266	289	299	307	310	324	338	347
Typist, senior	325	355	340	346	313	352	372	360	314	329	340	354
Word processor operator	...	322	384	394	358	353	367	349	348	362	366	400

### 5.20 Private pension plans, members and contributions by funding agency

Funding agency	January 1, 1982		1981 Contributions		
	Plans	Members	Employees \$'000	Employer \$'000	Total \$'000
Insurance companies	10,623	619,609	297,407	613,243	910,650
Canadian government annuities	38	141	52	47	99
Trusteed	4,331	3,181,365	2,028,636	3,896,670	5,925,306
Combination of above	221	170,333	75,427	320,609	396,036
Government consolidated revenue funds	19	686,487	857,793	1,303,372	2,161,165
Total	15,232	4,657,935	3,259,315	6,133,941	9,393,256
	January 1, 1984		1983 Contributions		
	Plans	Members	Employees \$'000	Employer \$'000	Total \$'000
Insurance companies	12,788	619,100	350,002	669,390	1,019,392
Canadian government annuities	22	78	17	47	64
Trusteed	4,655	3,062,893	2,341,696	3,964,081	6,305,777
Combination of above	227	169,969	82,887	255,591	338,478
Government consolidated revenue funds	19	712,583	1,119,972	1,702,692	2,822,664
Total	17,711	4,564,623	3,894,574	6,591,801	10,486,375

### 5.21 Trusteed pension funds, income expenditures and assets

Item	1982	1983	1984
No.			
Trust arrangements			
(a) Corporate trustees	2,578	2,631	2,572
(b) Individual trustees	848	919	1,091
(c) Combinations of (a) and (b)	32	29	10
(d) Pension fund societies	12	11	11
Total, trusteed funds	3,470	3,590	3,684

## 5.21 Trusteed pension funds, income expenditures and assets (concluded)

Item	1982	1983	1984
	\$'000,000		
Income			
Contributions			
Employer	4,368	4,123	4,147
Employee	2,331	2,492	2,651
Sub-total, contributions	6,699	6,615	6,798
Investment income	6,636	7,425	8,215
Realized profit on sale of securities	264	1,615	922
Miscellaneous	102	188	95
Total, income	13,701	15,842	16,030
Expenditures			
Pension payments out of funds	2,576	3,052	3,756
Cost of pension purchased	246	119	375
Cash withdrawals	494	685	753
Administration costs	109	133	153
Realized loss on sale of securities	297	30	76
Other expenditures	56	23	58
Total, expenditures	3,778	4,043	5,171
Assets (book value)			
Investment in pooled pension funds of trust companies	2,591	2,762	2,730
Investment in mutual funds	696	837	1,154
Investment in segregated funds of insurance companies	1,384	1,546	1,666
Bonds			
Bonds of, or guaranteed by, Government of Canada	7,942	10,475	13,648
Bonds of, or guaranteed by, provincial governments	16,198	18,720	20,331
Bonds of Canadian municipal governments, school boards	1,929	2,178	2,291
Other Canadian bonds	7,115	7,440	7,369
Non-Canadian bonds	82	160	117
Sub-total, bonds	33,266	38,974	43,756
Stocks			
Canadian, common	12,238	16,960	19,855
Canadian, preferred	537	695	560
Non-Canadian, common	3,126	4,078	4,727
Non-Canadian, preferred	1	9	9
Sub-total, stocks	15,902	21,742	25,151
Mortgages			
Insured residential (NHA)	3,575	3,935	3,835
Conventional	2,901	2,704	2,605
Sub-total, mortgages	6,476	6,639	6,439
Real estate and lease-backs	1,216	1,773	2,307
Miscellaneous			
Cash on hand and in chartered banks	3,296	3,383	3,368
Guaranteed investment certificates	560	466	635
Other short-term investments	4,883	4,524	6,992
Accrued interest and dividends receivable	1,223	1,468	1,572
Accounts receivable	428	670	520
Other assets	4	17	19
Sub-total, miscellaneous	10,394	10,529	13,106
Total, assets	71,925	84,801	96,311
Less: debts and amounts payable	..	191	217
Net assets	71,925	84,610	96,094



5.22 Fatal occupational injuries and illnesses<sup>1</sup>

Industry	Number				Percentage of total			
	1982	1983	1984	1985 <sup>p</sup>	1982	1983	1984	1985 <sup>p</sup>
Agriculture	19	21	20	20	1.9	2.6	2.6	2.6
Forestry	66	61	60	65	6.7	7.7	7.5	8.5
Fishing and trapping	18	15	27	26	1.8	1.9	3.4	3.4
Mining, quarrying and oil wells	150	100	102	116	15.3	12.6	12.8	15.1
Manufacturing	180	145	122	115	18.4	18.3	15.3	15.0
Construction	144	116	145	122	14.7	14.6	18.1	15.9
Transportation, communications and other utilities	179	137	123	122	18.3	17.3	15.4	15.9
Trade	68	58	52	71	6.9	7.3	6.5	9.2
Finance, insurance and real estate	6	4	10	4	0.6	0.5	1.3	0.5
Service	85	73	62	42	8.7	9.2	7.8	5.5
Public administration	54	54	65	46	5.5	6.8	8.1	6.0
Unspecified	10	10	11	19	1.0	1.3	1.4	2.5
Total	979	794	799	768	100.0	100.0	100.0	100.0

<sup>1</sup> Data derived from unprocessed fatality claims reported by worker compensation boards. They may differ from fatality claims in Table 5.24, which have been processed by compensation.

## 5.23 Number of accepted time-loss injuries, by province, 1982-84

Province	1982	1983	1984
Newfoundland	7,766	7,808	8,223
Prince Edward Island	1,499	1,627	1,495
Nova Scotia	12,501	12,156	11,940
New Brunswick	9,696	9,530	9,704
Quebec	159,288	160,796	176,001
Ontario	141,917	145,412	167,748
Manitoba	18,558	17,759	21,358
Saskatchewan	15,239	15,507	15,700
Alberta	44,941	37,346	37,665
British Columbia	66,882	62,949	59,319
Total	478,287	470,890	509,153

## 5.24 Compensation claims and payments made for occupational injuries and illnesses

Year and province	Compensation claims					Workers' compensation payments <sup>3</sup> \$'000
	Medical aid only <sup>1</sup>	Non-fatal disabling injury and illnesses	Fatal injury and illnesses <sup>2</sup>	Total disabling injury and illnesses	Total injuries and illnesses	
1983						
Newfoundland	7,133	7,958	24	7,982	15,115	28,370
Prince Edward Island						
Island	1,624	1,627	3	1,630	3,254	2,955
Nova Scotia	17,029	12,036	25	12,061	29,090	51,060
New Brunswick	11,046	11,149	16	11,165	22,211	39,123
Quebec	147,530	166,306	112	166,418	313,948	635,515
Ontario	175,871	147,447	219	147,666	323,537	860,093
Manitoba	15,578	19,214	31	19,245	34,823	50,413
Saskatchewan	18,002	16,011	35	16,046	34,048	69,045
Alberta	10,367	43,965	95	44,060	54,427	215,020
British Columbia	56,413	63,143	148	63,291	119,704	261,640
Yukon	525	395	1	396	921	1,733
Northwest Territories	1,586	1,212	9	1,221	2,807	3,423
Total	462,704	490,463	718	491,181	953,885	2,218,390

**5.24 Compensation claims and payments made for occupational injuries and illnesses (concluded)**

Year and province	Compensation claims					Workers' compensation payments <sup>1</sup> \$'000
	Medical aid only <sup>1</sup>	Non-fatal disabling injury and illnesses	Fatal injury and illnesses <sup>2</sup>	Total disabling injury and illnesses	Total injuries and illnesses	
1984						
Newfoundland	6,987	9,120	20	9,140	16,127	29,955
Prince Edward Island	1,586	1,531	1	1,532	3,118	3,315
Nova Scotia	18,602	12,003	20	12,023	30,625	53,298
New Brunswick	11,445	11,087	18	11,105	22,550	39,580
Quebec	168,423	179,100	139	179,239	347,662	756,572
Ontario	192,919	171,799	203	172,002	364,921	978,940
Manitoba	15,500	21,209	27	21,236	36,736	63,595
Saskatchewan	21,488	16,552	40	16,592	38,080	80,944
Alberta	7,898	41,132	96	41,228	49,126	200,762
British Columbia	55,314	59,910	134	60,044	115,358	274,443
Yukon	741	282	1	283	1,024	1,945
Northwest Territories	2,087	1,254	14	1,268	3,355	4,891
Total	502,990	524,979	713	525,692	1,028,682	2,488,240
1985 <sup>P</sup>						
Newfoundland	7,829	8,636	30	8,666	16,495	30,079
Prince Edward Island	1,500	1,500	2	1,502	3,002	4,575
Nova Scotia	15,877	11,763	16	11,779	27,656	55,954
New Brunswick	11,362	11,274	16	11,290	22,652	42,535
Quebec	145,992	199,703	161	199,864	345,856	809,837
Ontario	207,104	188,293	168	188,461	395,565	1,097,584
Manitoba	15,610	22,595	30	22,625	38,235	72,370
Saskatchewan	20,725	16,687	25	16,712	37,437	83,429
Alberta	9,553	47,881	123	48,004	57,557	259,084
British Columbia	57,880	62,052	126	62,178	120,058	267,729
Yukon	796	242	2	244	1,040	2,011
Northwest Territories	2,130	1,279	10	1,289	3,419	5,554
Total <sup>P</sup>	496,358	571,905	709	572,614	1,068,972	2,730,741

<sup>1</sup> Injuries requiring medical treatment but not causing disability for a sufficient period to qualify for compensation; the period varies among provinces.<sup>2</sup> See footnote Table 5.22.<sup>3</sup> Includes only, except where noted otherwise, payments to compensate loss of earnings, medical aid payments, cost of rehabilitation and hospitalization (not including capital expenditures) and pension paid (not pensions awarded) for temporary and permanent disabilities.**5.25 Unemployment Insurance claims and average payments**

Year, month and end of period	Activity				
	Persons covered by Unemployment Insurance '000	Claims data ('000)		Benefit data	
		Beneficiaries	Initial and renewal claims received	Number of weeks paid '000	Average weekly payment \$
1980	10,329	703	2,762	36,333	120.92
1981	10,617	720	2,947	37,011	130.45
1982	10,648	1,138	3,919	60,441	144.60
1983	10,797	1,248	3,434	66,585	154.88
1984	11,046	1,194	3,492	61,862	161.62
1985	11,340	1,145	3,312	59,788	170.96
1982					
January	10,352	1,078	385	4,509	139.80
February	10,370	1,130	257	4,570	141.57
March	10,493	1,146	297	5,556	141.91
April	10,470	1,175	280	4,904	141.88
May	10,711	1,098	265	4,793	141.71
June	10,908	1,033	309	4,868	141.89

## 5.25 Unemployment Insurance claims and average payments (concluded)

Year, month and end of period	Activity				
	Persons covered by Unemployment Insurance '000	Claims data ('000)		Benefit data	
		Beneficiaries	Initial and renewal claims received	Number of weeks paid '000	Average weekly payment \$
July	11,065	1,038	326	4,418	142.46
August	11,014	1,101	276	5,039	143.66
September	10,646	1,072	345	4,943	146.13
October	10,647	1,135	355	4,855	148.52
November	10,581	1,251	438	5,967	150.18
December	10,518	1,395	388	6,018	152.87
1983					
January	10,455	1,530	390	6,944	154.51
February	10,511	1,558	270	6,567	155.52
March	10,640	1,514	251	7,559	155.56
April	10,619	1,458	243	6,162	155.26
May	10,885	1,281	228	6,147	154.46
June	11,076	1,152	242	5,209	153.15
July	11,226	1,096	257	4,487	152.92
August	11,212	1,074	248	5,313	153.28
September	10,826	980	276	4,330	153.67
October	10,760	1,011	303	4,235	154.50
November	10,695	1,091	395	4,885	156.29
December	10,660	1,230	331	4,746	159.05
1984					
January	10,621	1,374	388	6,357	161.75
February	10,717	1,391	253	6,078	162.40
March	10,809	1,387	248	5,894	162.09
April	10,797	1,326	227	5,512	162.04
May	11,130	1,190	249	5,781	160.80
June	11,309	1,072	234	4,558	158.56
July	11,496	1,089	296	4,611	158.30
August	11,456	1,064	241	4,861	159.63
September	11,147	984	271	4,018	160.35
October	11,089	1,038	355	4,829	161.65
November	11,051	1,151	404	4,596	163.67
December	10,934	1,266	327	4,767	167.68
1985					
January	11,000	1,406	393	6,859	171.14
February	11,090	1,404	238	5,756	172.14
March	11,157	1,373	232	5,731	171.66
April	11,207	1,308	245	6,014	171.98
May	11,430	1,149	220	5,307	169.93
June	11,506	1,031	212	4,255	167.59
July	11,700	1,009	287	4,675	167.13
August	11,686	1,005	216	4,278	167.97
September	11,242	902	272	4,035	169.26
October	11,313	955	331	4,355	170.66
November	11,361	1,048	353	4,104	173.27
December	11,384	1,155	312	4,419	177.97

## 5.26 Unemployment Insurance benefits by type (thousand dollars)

Year, month and end of period	Benefits paid									
	Regular	Sickness	Maternity	Adoption	Retirement	Fishing	Training	Work sharing	Job creation	Total
1980	3,748,552	154,670	234,746	...	15,950	82,571	156,819	...	...	4,393,308
1981	4,115,789	164,261	273,052	...	17,582	92,443	165,147	...	...	4,828,273
1982	7,646,025	174,416	315,972	...	18,167	111,857	202,129	83,154	23,726	8,575,445
1983	9,069,503	179,474	344,168	...	18,514	141,836	225,767	83,140	106,661	10,169,063
1984	8,825,126	204,559	395,918	3,071	19,158	163,372	226,846	32,389	115,186	9,985,625
1985	8,975,315	220,700	432,531	3,845	22,399	179,767	234,529	25,190	132,612	10,226,888

## 5.26 Unemployment Insurance benefits by type (thousand dollars) (concluded)

Year, month and end of period	Benefits paid									
	Regular	Sickness	Maternity	Adoption	Retirement	Fishing	Training	Work sharing	Job creation	Total
1982										
January	554,406	14,189	23,882	...	1,385	18,762	17,751	...	...	630,376
February	568,762	14,362	22,437	...	1,598	18,780	20,966	50	...	646,956
March	695,837	17,503	26,277	...	1,699	23,432	21,217	853	...	786,817
April	610,579	14,846	25,221	...	1,305	17,941	18,918	2,264	...	691,074
May	595,098	14,148	25,604	...	1,241	10,664	19,556	4,397	14	670,722
June	605,958	14,606	27,151	...	1,879	440	16,020	8,101	254	674,408
July	550,111	13,462	26,760	...	1,343	110	10,017	8,917	478	611,198
August	615,776	13,597	28,108	...	1,554	80	9,128	6,502	1,564	712,310
September	635,450	14,005	29,147	...	1,604	79	9,816	10,211	2,778	703,088
October	616,530	13,628	26,693	...	1,477	88	17,905	13,092	4,329	693,742
November	770,919	15,394	28,812	...	1,680	3,621	20,214	15,320	6,732	862,692
December	790,597	14,675	25,881	...	1,401	17,860	20,623	13,448	7,578	892,062
1983										
January	945,021	14,843	26,614	...	1,452	26,841	17,276	11,259	7,986	1,051,291
February	887,299	14,615	24,790	...	1,545	21,525	23,979	12,625	11,374	997,752
March	1,017,724	17,378	28,581	...	1,661	25,019	28,351	15,000	13,619	1,147,333
April	833,282	14,288	25,875	...	1,460	20,911	22,869	9,928	8,842	937,455
May	832,500	15,050	28,634	...	1,648	16,220	20,307	9,133	8,360	931,852
June	698,084	14,941	30,012	...	1,565	2,168	22,098	7,243	8,849	784,960
July	613,745	13,381	28,109	...	1,420	388	10,121	4,464	7,067	678,694
August	733,634	16,261	34,102	...	1,790	756	11,748	3,114	10,068	811,473
September	591,850	14,584	30,539	...	1,584	788	11,014	2,974	9,503	662,837
October	578,693	14,231	29,965	...	1,528	809	16,850	2,486	7,099	651,660
November	675,675	15,408	30,828	...	1,639	5,364	22,063	2,598	7,291	760,866
December	661,996	14,496	26,121	...	1,223	21,047	19,090	2,315	6,603	752,891
1984										
January	914,666	16,592	29,690	2	1,626	29,481	23,407	3,133	6,650	1,025,248
February	869,551	17,019	28,990	95	1,548	28,900	25,789	3,910	6,675	982,477
March	838,435	18,300	30,497	238	1,602	24,938	25,259	4,195	6,762	950,226
April	788,664	15,713	27,856	238	1,360	24,813	21,076	3,406	5,786	888,913
May	819,812	17,917	34,799	315	1,720	19,356	22,875	3,101	6,097	925,992
June	641,391	16,389	32,929	330	1,582	858	16,994	2,896	6,342	719,710
July	651,469	17,019	35,707	303	1,490	1,244	11,230	2,365	8,266	777,722
August	695,129	18,119	38,842	326	1,646	1,653	9,725	1,600	10,683	777,722
September	570,730	15,610	33,033	292	1,433	1,433	10,284	1,665	11,482	645,961
October	683,891	18,315	39,285	340	1,833	1,749	20,542	1,855	16,141	783,949
November	658,185	17,376	34,173	322	1,779	6,201	19,116	2,093	15,718	754,963
December	693,205	16,191	30,117	270	1,540	22,747	20,548	2,172	14,583	801,371
1985										
January	1,038,682	19,414	36,107	320	2,153	36,322	23,527	3,512	12,982	1,173,018
February	870,735	17,807	30,244	265	1,919	27,191	25,875	3,691	11,342	989,070
March	860,396	19,144	31,989	284	2,012	26,851	25,569	3,826	11,262	981,334
April	910,323	19,129	34,374	295	1,954	27,824	24,394	3,176	10,469	1,031,939
May	786,010	19,445	37,301	365	2,015	20,137	22,202	2,555	10,738	900,767
June	628,661	17,098	34,573	335	1,844	1,093	16,786	1,777	12,105	714,272
July	691,682	18,530	40,945	367	1,850	1,932	13,193	1,343	14,915	784,759
August	638,254	17,933	39,328	356	1,907	1,857	9,707	868	11,463	721,673
September	603,376	17,555	38,225	339	1,743	1,809	10,791	980	10,347	685,164
October	646,290	19,187	42,069	354	1,926	2,106	21,325	1,112	11,199	745,569
November	620,550	17,864	34,892	301	1,663	7,422	19,944	1,126	8,659	712,420
December	680,355	17,595	32,484	263	1,414	25,224	21,216	1,224	7,130	786,904



### 5.27 Average incomes of families in current and constant (1985) dollars, selected years

Province	Current dollars							
	1971	1975	1977	1979	1981	1983	1984	1985
Newfoundland	7,470	13,216	16,456	18,947	25,464	26,894	28,003	29,629
Prince Edward Island	6,750	12,362	16,050	18,792	23,163	28,675	29,183	30,943
Nova Scotia	8,132	13,526	16,505	19,976	24,662	29,997	30,820	34,349
New Brunswick	8,239	13,752	16,888	19,559	24,305	27,861	30,191	31,473
Quebec	9,919	15,438	19,056	23,400	28,124	31,937	33,991	35,068
Ontario	11,483	18,040	21,600	25,298	32,170	37,465	38,464	41,775
Manitoba	9,216	14,974	18,421	21,916	28,189	34,436	33,783	34,829
Saskatchewan	7,776	15,867	17,960	22,874	28,743	33,186	33,090	34,866
Alberta	10,221	16,996	21,251	25,884	34,546	37,219	37,670	40,736
British Columbia	11,212	17,734	21,040	26,644	32,835	36,034	35,944	37,968
Canada	10,368	16,604	20,101	24,245	30,440	34,748	35,767	38,059
	Constant dollars							
	1971	1975	1977	1979	1981	1983	1984	1985
Newfoundland	22,519	28,730	30,833	29,861	32,390	29,189	29,125	29,629
Prince Edward Island	20,349	26,873	30,072	29,616	29,463	31,122	30,352	30,943
Nova Scotia	24,515	29,403	30,925	31,482	31,370	32,556	32,055	34,349
New Brunswick	24,838	29,895	31,642	30,825	30,916	30,238	31,401	31,473
Quebec	29,902	33,560	35,704	36,879	35,774	34,662	35,353	35,068
Ontario	34,617	39,216	40,471	39,870	40,920	40,662	40,005	41,775
Manitoba	27,783	32,551	34,515	34,540	35,856	37,374	35,137	34,829
Saskatchewan	23,442	34,492	33,651	36,050	36,561	36,018	34,416	34,866
Alberta	30,813	36,947	39,817	40,793	43,943	40,395	39,179	40,736
British Columbia	33,800	38,551	39,422	41,991	41,766	39,109	37,384	37,968
Canada	31,256	36,095	37,662	38,210	38,720	37,713	37,200	38,059

### 5.28 Percentage distribution of families, showing average and median<sup>1</sup> incomes, in constant (1985) dollars, selected years

Income group	1971	1975	1977	1979	1981	1983	1984	1985
Under \$10,000	11.4	6.9	7.1	6.6	5.6	5.9	6.5	5.8
\$10,000-\$14,999	8.8	8.8	7.8	8.3	8.0	8.8	9.0	8.7
15,000 - 19,999	10.0	7.9	7.0	7.0	7.8	9.2	9.5	9.5
20,000 - 24,999	11.6	9.3	8.2	8.3	8.7	9.2	8.7	8.9
25,000 - 29,999	12.4	11.0	9.8	9.3	9.4	9.9	9.6	9.3
30,000 - 34,999	12.0	11.1	10.4	10.2	9.7	10.0	9.6	9.6
35,000 - 44,999	16.3	18.3	18.3	18.4	18.4	16.9	17.8	17.0
45,000 and over	17.4	26.7	31.3	31.9	32.6	30.1	29.2	31.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average income	\$ 31,255	36,095	37,662	38,210	38,720	37,712	37,200	38,059
Median income	\$ 28,137	32,729	34,795	35,158	35,450	33,454	33,431	34,076
Standard error of average income	\$ 249	234	223	244	219	256	231	258

<sup>1</sup> Median income refers to the middle or central value when incomes are ranged in order of magnitude. Median income is lower than average income in these tables since it is not as affected by a few abnormally large values in the distribution.

## 5.29 Percentage distribution of families by income group and province, 1985

Income group	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	Canada
Under \$10,000	8.6	4.6	6.5	8.4	6.7	4.2	6.3	8.0	5.0	6.6	5.8
\$10,000-\$14,999	16.2	12.8	11.3	10.9	9.9	6.7	8.5	10.4	6.8	9.7	8.7
15,000- 19,999	12.6	14.0	13.2	12.8	9.6	8.4	11.7	10.4	9.3	9.2	9.5
20,000- 24,999	12.7	12.9	11.1	12.1	9.8	7.6	10.5	9.0	8.7	8.0	8.9
25,000- 29,999	10.3	11.6	9.2	10.4	9.9	8.9	10.2	9.4	9.3	8.3	9.3
30,000- 34,999	8.3	8.7	9.4	10.1	10.4	9.5	11.1	10.0	8.2	9.0	9.6
35,000- 39,999	8.8	9.4	7.9	8.0	10.1	9.3	9.3	8.9	8.4	8.6	9.1
40,000- 44,999	5.9	6.4	7.9	6.7	7.7	8.6	7.9	7.2	7.1	8.0	7.9
45,000 and over	16.5	19.5	23.5	20.6	25.6	36.8	24.3	26.7	37.2	32.7	31.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average income	\$ 29,629	30,943	34,349	31,473	35,068	41,775	34,829	34,866	40,736	37,968	38,059
Median income	\$ 24,896	27,317	29,343	27,694	31,690	37,609	31,235	31,315	36,490	34,560	34,076

## 5.30 Upper limits of income quintiles and percentage distribution of total income of families and unattached individuals, by quintiles, selected years

Category and year	Lowest quintile	Second quintile	Middle quintile	Fourth quintile	Highest quintile
<b>Families</b>					
Upper limits					
1971	4,927	8,044	10,669	14,196	...
1975	8,214	12,997	17,224	22,823	...
1977	9,987	16,025	21,223	28,439	...
1979	11,851	19,214	25,512	33,963	...
1980	13,159	21,695	28,630	38,226	...
1981	15,126	23,767	31,783	42,514	...
1982	15,339	25,344	34,374	46,388	...
1983	16,216	26,205	36,022	48,905	...
1984	16,473	27,084	37,140	50,228	...
1985	17,834	28,800	39,418	53,400	...
Shares of total income					
1971	5.6	12.6	18.0	23.7	40.0
1975	6.2	13.0	18.2	23.9	38.8
1977	5.9	13.1	18.5	24.4	38.0
1979	6.1	13.0	18.4	24.3	38.3
1980	6.2	13.0	18.4	24.1	38.4
1981	6.4	12.9	18.3	24.1	38.9
1982	6.3	12.6	18.0	24.1	39.5
1983	6.2	12.3	17.8	24.1	39.5
1984	6.1	12.3	18.0	24.1	39.4
1985	6.3	12.3	17.9	24.1	39.4
<b>Unattached individuals</b>					
Upper limits					
1971	1,384	2,199	4,296	6,959	...
1975	2,400	3,624	6,705	10,422	...
1977	2,874	4,452	8,412	13,200	...
1979	3,777	5,820	10,500	16,000	...
1980	4,529	6,275	11,399	18,100	...
1981	5,348	7,795	13,565	20,800	...
1982	5,992	8,528	14,691	22,825	...
1983	6,116	8,362	13,900	23,021	...
1984	6,500	9,308	15,112	24,199	...
1985	7,000	9,977	15,950	25,092	...
Shares of total income					
1971	2.9	8.0	14.8	25.8	48.6
1975	3.9	8.9	15.5	25.6	46.1
1977	3.8	8.4	15.4	25.8	46.5
1979	4.6	8.9	15.8	25.1	45.6
1980	4.5	9.4	15.5	25.7	44.9
1981	5.0	9.5	15.7	25.1	44.7
1982	4.9	9.5	15.4	24.9	45.4
1983	4.8	9.5	14.5	24.2	47.1
1984	4.9	9.9	15.2	24.6	45.4
1985	5.2	10.2	15.0	24.2	45.4

### 5.30 Upper limits of income quintiles and percentage distribution of total income of families and unattached individuals, by quintiles, selected years (concluded)

Category and year	Lowest quintile	Second quintile	Middle quintile	Fourth quintile	Highest quintile
Families and unattached individuals					
Upper limits					
1971	3,110	6,275	9,295	12,941	...
1975	5,038	9,793	14,545	20,598	...
1977	5,973	12,013	17,993	25,594	...
1979	7,331	14,148	21,380	30,400	...
1980	8,243	16,000	23,292	33,753	...
1981	9,872	18,178	27,145	38,107	...
1982	10,645	19,285	28,808	41,401	...
1983	10,648	19,762	30,032	43,770	...
1984	11,126	20,194	21,204	44,832	...
1985	12,000	21,500	33,070	47,914	...
Shares of total income					
1971	3.6	10.6	17.6	24.9	43.3
1975	4.0	10.6	17.6	25.1	42.6
1977	3.8	10.7	17.9	25.6	42.0
1979	4.2	10.6	17.6	25.3	42.3
1980	4.1	10.5	17.7	25.3	42.4
1981	4.6	10.9	17.6	25.2	41.8
1982	4.5	10.7	17.3	25.0	42.5
1983	4.4	10.3	17.1	25.0	43.2
1984	4.5	10.3	17.1	25.0	43.0
1985	4.7	10.4	17.0	25.0	43.0

### 5.31 Estimated incidence and percentage distribution of low-income<sup>1</sup> and all other families and unattached individuals, 1985

Selected characteristics	Families			Unattached individuals		
	Incidence of low income <sup>2</sup>	Percentage distribution of		Incidence of low income <sup>2</sup>	Percentage distribution of	
		Low income	All other		Low income	All other
All families and unattached individuals	13.3	100.0	100.0	36.8	100.0	100.0
Estimated numbers ('000)	908	908	5,940	1,009	1,009	1,734
By province of residence						
Atlantic provinces	15.9	10.3	8.4	39.1	6.8	6.1
Newfoundland	21.0	3.2	1.9	45.3	1.1	0.8
Prince Edward Island	10.9	0.4	0.5	39.7	0.4	0.3
Nova Scotia	13.9	3.5	3.3	36.1	3.0	3.1
New Brunswick	15.5	3.2	2.7	40.7	2.3	2.0
Quebec	15.8	31.9	26.0	46.4	32.1	21.6
Ontario	10.2	27.5	37.2	32.0	30.9	38.3
Prairie provinces	13.4	17.3	17.1	32.2	16.1	19.8
Manitoba	13.8	4.3	4.1	34.6	4.2	4.7
Saskatchewan	15.0	4.3	3.7	36.0	4.2	4.4
Alberta	12.6	8.7	9.2	29.3	7.6	10.7
British Columbia	14.7	12.7	11.4	36.6	14.1	14.2
By size of area of residence						
Urban areas 500,000 and over	13.5	44.7	43.8	37.2	52.9	52.1
Urban areas 100,000 - 499,999	13.2	12.7	12.7	38.1	15.3	14.5
Urban areas 30,000 - 99,999	13.6	10.7	10.4	42.6	12.2	9.6
Urban areas under 30,000	12.8	13.5	14.1	34.4	12.0	13.3
Rural areas	12.9	18.4	19.0	29.4	7.6	10.6
By tenure						
Owners	7.9	43.0	76.7	28.2	20.3	30.2
With mortgage	6.6	18.7	40.3	18.9	4.3	10.7
Without mortgage	9.2	24.2	36.4	32.4	16.0	19.5
Renters <sup>3</sup>	27.2	57.0	23.3	39.9	79.7	69.8

### 5.31 Estimated incidence and percentage distribution of low-income<sup>1</sup> and all other families and unattached individuals, 1985 (concluded)

Selected characteristics	Families			Unattached individuals		
	Incidence of low income <sup>2</sup>	Percentage distribution of		Incidence of low income <sup>2</sup>	Percentage distribution of	
		Low income	All other		Low income	All other
By age of head						
24 years and under	32.0	11.0	3.6	48.0	22.5	14.2
25 - 34 years	15.9	28.2	22.8	22.0	14.6	30.0
35 - 44 "	13.0	24.3	24.8	21.9	6.3	13.2
45 - 54 "	9.2	12.4	18.8	32.0	7.1	8.7
55 - 64 "	11.8	13.5	15.3	43.9	14.3	10.6
65 - 69 "	10.6	4.5	5.8	43.8	8.4	6.2
70 years and over	9.5	6.1	8.9	47.9	26.9	17.1
By sex and age of head						
Male	9.5	63.5	92.4	30.5	37.4	49.5
Under 65 years	9.6	55.0	79.3	30.0	31.3	42.5
65 years and over	9.1	8.5	13.0	33.7	6.1	7.0
Female	42.3	36.5	7.6	41.9	62.6	50.5
Under 65 years	46.7	34.5	6.0	36.3	33.4	34.2
65 years and over	16.5	2.0	1.6	51.0	29.2	16.3
By family characteristics						
Married couples only	7.8	18.0	32.4	...	...	...
Married couples with single children only	10.3	39.7	53.1	...	...	...
Married couples with children and/or other relatives	6.8	2.0	4.2	...	...	...
Lone-parent families						
Male head	19.7	2.3	1.4	...	...	...
Female head	48.0	33.3	5.5	...	...	...
All other families	17.2	4.7	3.5	...	...	...
By number of children under 18 years						
None	8.4	30.6	50.7	36.8	100.0	100.0
One child	16.4	25.6	19.9	...	...	...
Two children	16.2	26.6	21.0	...	...	...
Three or more children	24.1	17.2	8.3	...	...	...
By employment status of head						
In labour force	9.6	55.3	80.0	23.4	37.3	71.3
Not in labour force	25.5	44.7	20.0	56.0	62.7	28.7
By size of family unit						
One person	...	...	...	36.8	100.0	100.0
Two persons	12.8	37.2	38.9	...	...	...
Three persons	14.9	25.8	22.5	...	...	...
Four persons	11.1	20.3	25.0	...	...	...
Five or more persons	15.8	16.7	13.6	...	...	...

<sup>1</sup> Estimates based on low-income cutoffs, 1978 base, as described in preceding text.

<sup>2</sup> Percentage of families and unattached individuals with income below the low-income cutoffs.

<sup>3</sup> Includes roomers, lodgers and families and unattached individuals who receive free lodging or who reside with employers.

### 5.32 Patterns of family expenditures (Canada, 10 provinces), selected years, 1969-82

Item	1969	1978	1982	1982					
				Under \$10,000	\$10,000 – \$19,999	\$20,000 – \$29,999	\$30,000 – \$39,999	\$40,000 – \$49,999	\$50,000 and over
Number of families in sample	15,140	9,370	10,952	1,457	2,495	2,442	1,972	1,233	1,353
Estimated number of families ('000)	6,008	7,568	8,421	1,182	1,914	1,903	1,486	928	1,009
Average									
Family size	3.31	2.93	2.72	1.49	2.31	2.81	3.21	3.42	3.44
Age of head	47	46	46	58	49	42	41	42	45
Family Income (\$)	8,079	19,583	29,088	6,777	14,924	24,883	34,574	44,510	67,766
Other money receipts (\$)	194	359	537	410	425	409	664	622	873
Change in assets and liabilities (\$)	129	1,221	2,416	-597	18	1,069	2,808	4,260	10,762



**5.32 Patterns of family expenditures (Canada, 10 provinces), selected years, 1969-82 (concluded)**

Item	1969	1978	1982	1982					
				Under \$10,000	\$10,000 – \$19,999	\$20,000 – \$29,999	\$30,000 – \$39,999	\$40,000 – \$49,999	\$50,000 and over
Percentage									
Homeowners	58.6	63.3	61.7	35.6	49.6	58.9	71.0	82.7	87.1
Automobile owners	72.1	78.2	79.2	33.3	70.6	88.2	93.7	96.1	95.3
Total expenditure (\$)	8,075	18,728	27,062	7,797	15,430	24,202	32,358	40,311	57,116
Percentage share									
Food	19.0	17.0	15.3	24.3	19.6	16.7	15.1	13.9	11.5
Shelter	15.9	16.5	17.5	29.8	21.9	18.5	16.9	16.0	14.0
Household operation	3.8	3.9	4.3	6.4	5.4	4.5	4.3	3.9	3.7
Household furnishings	4.1	4.4	3.6	3.2	3.7	3.5	3.7	4.0	3.4
Clothing	8.9	7.2	6.1	5.6	6.3	5.8	6.3	6.4	5.9
Transportation	12.6	13.0	12.1	9.6	13.2	13.5	12.3	11.7	11.0
Health care	3.4	2.0	1.9	2.4	2.4	2.1	1.8	1.8	1.6
Personal care	2.1	1.7	1.8	2.5	2.2	1.9	1.8	1.7	1.5
Recreation	4.2	5.1	4.7	3.1	4.1	4.4	4.6	4.7	5.4
Reading materials	0.6	0.6	0.6	0.8	0.7	0.6	0.6	0.5	0.5
Education	0.9	0.6	0.7	0.7	0.5	0.6	0.6	0.8	0.9
Tobacco products and alcohol	3.9	3.3	3.3	4.4	4.3	3.9	3.3	3.1	2.4
Miscellaneous	1.6	2.5	2.9	2.8	2.8	3.0	3.3	2.9	2.7
Total current consumption	81.0	77.7	74.8	95.6	87.0	78.9	74.6	71.3	64.5
Personal taxes	11.9	15.5	17.9	0.3	7.0	14.2	18.1	20.6	27.2
Security	4.4	4.2	4.3	0.9	2.7	4.2	4.7	5.0	5.0
Gifts and contributions	2.7	2.5	3.0	3.3	3.3	2.7	2.7	3.0	3.3

**5.33 Patterns of family expenditures (17 cities<sup>1</sup>), selected years, 1969-84**

Item	1969	1974 <sup>2</sup>	1978	1982	1982						1984
					Under \$10,000	\$10,000 – \$19,999	\$20,000 – \$29,999	\$30,000 – \$39,999	\$40,000 – \$49,999	\$50,000 and over	
Number of families in sample	6,296	5,952	5,179	6,344	779	1,334	1,364	1,174	756	937	5,139
Estimated number of families ('000)	2,904	—	3,545	4,045	518	821	864	747	474	621	4,128
Average											
Family size	3.10	2.98	2.74	2.58	1.37	2.01	2.54	2.95	3.31	3.37	2.61
Age of head	46	45	45	45	55	48	42	42	42	45	45
Family income (\$)	9,089	14,510	21,139	31,532	6,705	15,031	24,958	34,631	44,566	69,543	34,126
Other money receipts (\$)	207	359	750	664	615	476	487	890	521	1,040	863
Change in assets and liabilities (\$)	247	752	1,543	2,778	-612	-55	722	2,824	4,094	11,157	2,263
Percentage											
Homeowners	47.9	50.3	52.2	52.6	18.6	31.9	48.2	61.5	76.4	85.7	52.5
Automobile owners	68.1	71.4	72.4	73.6	21.9	56.9	80.9	90.4	93.8	93.5	73.3
Total expenditure (\$)	8,979	13,921	19,990	29,353	7,946	15,748	24,701	32,785	40,595	58,972	32,680
Percentage share											
Food	17.9	17.3	16.7	14.8	23.9	18.7	16.5	15.0	14.1	11.5	14.6
Shelter	16.8	15.6	17.3	18.1	32.2	24.1	19.7	17.9	16.5	14.5	17.7
Household operation	3.7	3.5	3.7	4.1	6.2	5.2	4.1	4.1	3.7	3.7	4.2
Household furnishings	3.9	4.4	4.1	3.4	2.7	3.4	3.1	3.4	4.0	3.4	3.5
Clothing	8.8	7.6	7.2	6.1	5.7	6.3	5.7	6.1	6.4	6.0	6.3
Transportation	11.7	11.4	11.7	11.4	8.2	11.4	12.7	12.0	11.3	10.6	11.8
Health care	3.3	2.1	1.9	1.9	2.3	2.4	2.0	1.9	1.9	1.7	1.9
Personal care	2.1	1.7	1.7	1.8	2.6	2.3	1.9	1.8	1.8	1.5	1.9
Recreation	4.1	4.7	5.0	4.6	3.3	4.1	4.5	4.3	4.8	5.3	4.7
Reading materials	0.7	0.6	0.6	0.6	0.9	0.8	0.6	0.6	0.6	0.5	0.6
Education	1.0	0.8	0.8	0.8	1.1	0.8	0.7	0.7	0.8	0.9	0.8
Tobacco products and alcohol	3.7	3.4	3.2	3.1	4.6	4.1	3.7	3.1	3.0	2.4	3.1
Miscellaneous	1.4	2.1	2.2	2.8	2.1	2.6	2.9	3.1	2.8	2.6	2.6
Total current consumption	79.0	75.2	76.1	73.5	95.8	86.1	78.2	74.1	71.7	64.5	73.6
Personal taxes	13.7	17.6	16.9	19.2	0.7	8.0	15.0	18.7	20.7	27.4	18.6
Security	4.7	5.1	4.6	4.4	0.9	2.6	4.3	4.7	4.9	5.0	4.6
Gifts and contributions	2.7	2.1	2.3	2.8	2.6	3.3	2.6	2.6	2.8	3.1	3.2

<sup>1</sup> St. John's, Charlottetown, Summerside, Halifax, Saint John, Quebec, Montreal, Ottawa, Toronto, Thunder Bay, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver and Victoria.<sup>2</sup> The 1974 survey did not cover Charlottetown, Summerside and Victoria.

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CHAPTER 6

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# SOCIAL SECURITY

## CHAPTER 6

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### SOCIAL SECURITY

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## THEN

In 1936, because of the serious drought conditions that developed, Canada entered into agreements with the three Prairie provinces, in which the Dominion agreed to pay all costs incurred by the provinces for food, fuel, clothing and necessary shelter from September 1, 1936, to March 31, 1937, to all permanent residents in need of relief. Those located in cities and towns were cared for by the provinces and municipalities with the Dominion's assistance. (1937)

"A Board of Pension Commissioners for Canada... was created... [on] June 3, 1916... with exclusive jurisdiction and authority to deal with the granting and payment of naval and military pensions and other allowances to persons in the Canadian Naval Forces and the

Canadian Expeditionary Force and to their dependents... Under the existing scale... pensions range for the rank and file... from \$30 up to \$600 per annum, and for disablement from \$600 for rank and file up to \$2,700 for persons of and above the rank of commodore or brigadier-general." (1918)

In 1920, the Employment Service Council of Canada began issuing certificates to the unemployed, enabling them to travel by rail at reduced rates to other localities needing workers. During 1920, 30,800 certificates were issued. (1931)



## NOW

In 1984-85, over 2.5 million Canadians received Old Age Security benefits, half of whom also received Guaranteed Income Supplement payments. The Spouse's Allowance program provided income to more than 90,000 Canadians.

In the 1985 tax year, about \$1.5 billion was paid to just over 2.6 million families, on behalf of 5.3 million children, under the Child Tax Credit program.

As of January 1987, contributors to the Canada Pension Plan have the option of receiving retirement benefits as early as age 60. The maximum monthly retirement pension for 1980 was \$180.11.

## CHAPTER 6

# SOCIAL SECURITY

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Canada's social security system ensures that all Canadians have at least a minimum of resources available to meet their basic needs, and essential services to maintain their well-being. This goal is attained through a range of income security and social service programs. (Although social security may be considered to encompass health care, this chapter does not discuss health programs. See Chapter 3.) Within the scope of income security, financial benefits are available to particular target groups such as seniors, families, workers and disabled persons. Additionally, a safety net program (provincial social assistance) ensures that no person will have to live in need. Thus, through a network of programs, the financial well-being of Canadians is assured. Social services provide a supplement to this network, by fulfilling other needs which cannot be met by income assistance.

All three levels of government are involved in providing social security; the Canada Constitution Act, 1867, sets out jurisdictional responsibilities. The federal government administers certain programs for the aged, families and other selected groups, and shares the funding for several provincial initiatives. It is also solely responsible for social security for veterans of the armed forces and registered Indians and Inuit. The provinces (the term "province" includes provinces and territories, unless otherwise noted) and municipalities provide most direct services and a variety of financial assistance programs to Canadians. Voluntary agencies provide additional support.

Canadian social programs have roots in charitable activities of the churches and early attempts to organize relief services at the municipal level. Generally, the programs have evolved to meet the needs of Canadians in the context of a changing society. The current system focuses on particular groups within the population who are most likely to require support. Examples of these target groups are the elderly, families, the unemployed and the disabled.

This chapter describes the individual programs which make up "social security". It is organized initially, by level of government. Within this framework, programs are described by target group or program type. The descriptions are complemented by a series of tables presenting the number of beneficiaries and expenditures for component programs and the social security system as a whole.

### 6.1 Federal income security programs

#### 6.1.1 Senior citizens' benefits

The three programs, Old Age Security (OAS), Guaranteed Income Supplement (GIS) and Spouse's Allowance (SPA), administered by the Department of National Health and Welfare, ensure a minimum level of income for the elderly. The basic Old Age Security pension has been in effect since 1952. It provides monthly benefits to all persons aged 65 years and over who meet the residence requirements. Since 1967, pensioners with little or no other income have also been eligible for the Guaranteed Income Supplement. Application for GIS is required annually. Since October 1975, the Spouse's Allowance has been available to the spouse of a pensioner who has little or no other income. The applicant must be between 60 and 64 years old and must meet residence requirements. In 1979, SPA became available to a low-income surviving spouse of a deceased OAS pensioner. This provision was expanded in 1985 to include widows and widowers aged 60 to 64 years, subject to an income test. Benefits cease at age 65.

In order to be eligible for a full OAS pension, applicants must have resided in Canada for 40 years after the age of 18 or, if age 25 or over as of July 1, 1977, for 10 consecutive years immediately prior to application. In July 1977, the basis for eligibility was modified to introduce partial pensions based on years of

residence. Reciprocal International Social Security Agreements have been signed with a number of countries to enable persons to satisfy minimum residency requirements for establishing eligibility for OAS benefits. A person living in Canada may add periods of residence in another country to his years in Canada in order to qualify. Pension is earned at the rate of 1/40th for each year of residence in Canada, subject to a minimum of 10 years for payment in Canada and 20 years for payment abroad. Agreements with Italy, France, Portugal, Greece, Jamaica, the United States, Barbados, Denmark and Sweden are currently in force; agreements with Belgium and the Federal Republic of Germany, Luxembourg and Norway are awaiting ratification.

Both GIS and SPA benefits are income-tested. Entitlement is based on the income of the pensioner/applicant in the previous year, calculated in accordance with the Income Tax Act. The maximum GIS is reduced by \$1 a month for every \$2 a month of other income. In the case of a married couple, income is assumed to be equally shared. The SPA is made up of an amount equal to the OAS pension plus the maximum GIS at the married rate. The amount payable is reduced by \$3 for every \$4 of the couple's combined monthly income until the OAS amount is eliminated. After that, the GIS amount is reduced by \$1 for every \$4 of combined income. In the case of extended or widowed SPA, the GIS portion is reduced by a ratio of \$1 for every \$2 of income.

Beginning in 1973, OAS/GIS/SPA benefits were escalated quarterly at the rate of increase in the Consumer Price Index (CPI). A legislative amendment limited indexation increases in OAS payments to 6% for 1983 and 5% for 1984 as part of the federal government's fiscal restraint program. During this period, the GIS rate was increased slightly to compensate for any loss arising from the limited indexation of the basic OAS benefit. Full quarterly indexation resumed in 1985.

As of July 1986, the maximum OAS pension was \$291.51. The Guaranteed Income Supplement provided an additional \$346.45 to eligible single pensioners and \$225.63 to each spouse in a married couple. Regular SPA benefits were \$517.14; the rate for the Extended and Widowed SPA was \$570.95. All amounts are paid monthly.

In 1984-85, just over 2.5 million Canadians received OAS benefits; 50% of those recipients also received GIS payments. The Spouse's Allowance program provided income to more

than 90,000 Canadians. Total program expenditures for OAS/GIS/SPA were approximately \$11.4 billion during 1984-85.

In addition to benefits from the OAS/GIS/SPA programs, many Canadian seniors also receive income from other income support programs. At the federal level, Canada Pension Plan provides monthly benefits to retired contributors (see section 6.3.2). The Unemployment Insurance program offers a lump-sum benefit to insured workers upon retirement (see section 6.3.1). Most provinces provide supplements to low-income seniors, and offer property or shelter-related tax credits, grants or rebates (see sections 6.4.3 and 6.4.4). Furthermore, all three levels of government offer services to elderly Canadians.

### 6.1.2 Family Allowances

The federal Family Allowances program was initiated near the end of World War II to provide a basic monthly supplement to Canadian families for each child up to age 16. A family assistance program which began in 1956 provided benefits for children of immigrants until they qualified for Family Allowances after one year in Canada. In 1964, the Youth Allowances Act extended coverage to children aged 17 and 18 years who continued to attend school. The Family Allowances Act, 1973, replaces the former legislation. It covers dependent children up to the age of 18. The act increased benefits to \$20 a month and provision was made to index them annually to correspond to the increases in the cost of living. Normally, the allowances are paid to the mother of the child.

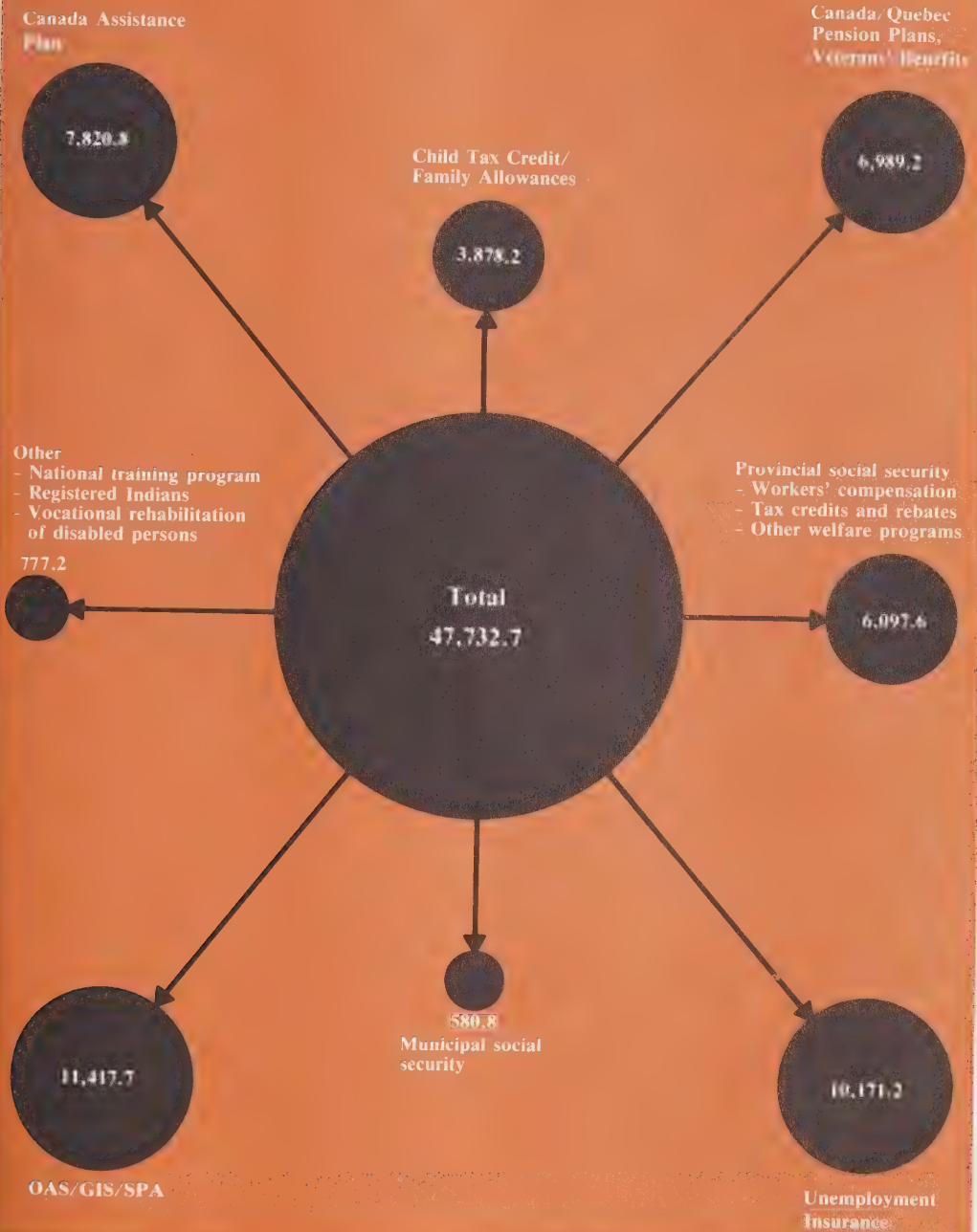
In 1986, the Family Allowance payment was \$31.58 a month on behalf of each child cared for in the parental home. A Special Allowance is payable on behalf of children under 18 who are in the care of institutions, welfare agencies, government agencies or foster parents. The monthly benefit was \$47.12 in 1986.

The Family Allowances Act, 1973, allows a provincial government to specify rates to be paid in its province, based on age of the child, number of children in the family or both. Quebec and Alberta are the only provinces currently exercising this option. Quebec also provides a supplement to the federal Family Allowance. Table 6.3 outlines the rates payable in Quebec and Alberta.

In 1984-85, an average of 3.6 million families received Family Allowances on behalf of 6.6 million children. A total of just over \$2.4 billion was provided to families under the program (Table 6.2).



Chart 6.1  
Social security expenditures by selected programs, 1985  
Million dollars



The Family Allowances program is one of several programs aimed at assisting families. The Child Tax Credit and a variety of provincial initiatives (see sections 6.4.3 and 6.4.4) provide additional support.

### 6.1.3 Child Tax Credit

In 1979, the federal government introduced an annual refundable Child Tax Credit for families with children. Application is made through a special form attached to the annual federal personal income tax return. A credit of \$384 per child was payable in 1986 to applicants whose net incomes for 1985 did not exceed \$26,330. The benefit is reduced by 5% of any net income above that level. For the 1986 taxation year and subsequent years, the income threshold was reduced to \$23,500 and the maximum annual tax credit was fixed at \$454 per child. For the 1985 tax year, preliminary figures indicate that approximately \$1.5 billion was paid to just over 2.6 million families, on behalf of 5.3 million children (Table 6.4).

### 6.1.4 Programs for native peoples

Indians, as other Canadians, are entitled to the benefits of universal federal programs such as Family Allowances, Old Age Security pensions, the Guaranteed Income Supplement, and Child Tax Credit. Indians receive Canada or Quebec pension plan payments, unemployment insurance, workers' compensation and veterans' benefits.

Where there are agreements between the federal and provincial governments, provincial welfare benefits and services are available to registered Indians living on reserves and Crown land, but the amount of help varies according to province. Welfare assistance to registered Indians who do not live on reserves can also vary; most provinces seek recovery from the federal government of the costs of assistance and services.

**Federal-provincial arrangements.** Individual arrangements have been worked out between the federal government and provincial authorities. All welfare programs in Ontario are available to Indians living there, either on or off reserves. In Quebec, federal contracts with eight social agencies furnish welfare service to Indians in their geographic jurisdictions; a James Bay agreement provided for a provincially sponsored Cree health and social services board. In agreement with the federal and Alberta governments, the Blackfoot band administers two provincial health and social development programs on the reserve.

The federal Department of Indian Affairs and Northern Development has four main welfare objectives: to ensure that services are comparable to those available to other Canadians in a province; to increase Indian participation in the design and operation of social service programs; to strengthen family life and encourage independence; and to help other government and private agencies provide social services to Indians.

The department's social assistance program provides basic household needs (food, clothing, shelter, fuel). Administration is handled by departmental employees on some reserves, by employees of the band council on others.

Indian residents are subject to the child welfare legislation in their own province. The aim of the departmental child care program is to ensure that provincial and territorial services for neglected, dependent or delinquent children are available to Indian children living on reserves. In conformity with federal-provincial agreements, Indian and Northern Affairs Canada pays for maintenance and protection services to Indian children in Yukon, Manitoba, Ontario, Quebec, Nova Scotia and British Columbia. In provinces where child care services are voluntary, the department pays administrative costs and daily rates for Indian children in foster homes or other agencies.

The department pays for maintenance and care of physically and socially handicapped adults in homes for the aged and other institutions. Indian recipients of such benefits as Old Age Security or the Guaranteed Income Supplement may get additional assistance from the department.

With departmental support, a number of bands administer their own day care centres, senior citizens' homes, and community-based social services. The department also operates a rehabilitation program to avert social problems and reduce the effects of physical disabilities and emotional difficulties.

A work opportunity program gives jobs to people on welfare who are physically able to work. Social assistance funds are used to provide native communities with facilities, for example, roads and services such as day care, instead of direct financial aid. Each project is financed by a reallocation of social assistance funds plus money from other sources (regional appropriations, provincial revenues, band revenues).

The program is an example of the transfer of social service administration from the government to the native people. Approval is granted

only to projects that are planned, designed and operated by band councils or their delegated groups.

### 6.1.5 Veterans of the Canadian forces

Legislation for veterans and their dependents is administered by the Department of Veterans Affairs (DVA) and four affiliated independent agencies: Canadian Pension Commission, Pension Review Board, War Veterans Allowance Board and the Bureau of Pensions Advocates. Changes in legislation through the years have been made in relation to changing economic and social circumstances of veterans, particularly regarding pensions and allowances. Programs administered by the department include medical treatment, in-home care, housing, educational assistance, counselling and other services. Departmental work is carried out through regional and district offices across Canada.

**Pensions for death and disability.** The Canadian Pension Commission administers most of the Pension Act, the Compensation for Former Prisoners of War Act and parts of the Civilian War Pensions and Allowances Act.

The Pension Act provides for payment of pensions in respect of disability or death related to military service. These could result from injury or disease incurred during or attributable to service with the Canadian forces in war or arising from or directly connected with peacetime service. Pensions may also be paid to dependents of a disabled former member of the forces or to the surviving dependents of a deceased veteran. The amount of disability pension payable is set out in the Pension Act based on a rate established in 1978 and pensions are indexed in accordance with the Consumer Price Index.

The Compensation for Former Prisoners of War Act provides for compensation to former prisoners of war and their dependents, in addition to any disability pension they may be receiving.

**Pension Review Board.** The Pension Review Board was established under the 1971 amendments to the Pensions Act. Any decision of an entitlement board or of an assessment board of the Canadian Pension Commission is appealable to the Pension Review Board. The Pension Review Board has authority to determine any questions of law or fact as to whether a person is entitled to an award under the act. The amount of any such award, and the decision of the board, are final and binding for all purposes of the act.

**War veterans allowance.** The War Veterans Allowance Act provides for allowances to war

veterans who, because of age or incapacity, can no longer maintain their employment income at a specified level. Widows, widowers and orphans of qualified veterans are eligible for benefits.

**Civilian war allowance.** Similar benefits are available to certain groups of civilians and their widows, widowers and orphans, under the Civilian War Pensions and Allowances Act.

The War Veterans Allowance Board acts as a court of appeal for aggrieved applicants and recipients, and reviews decisions of district authorities to ensure that adjudication is consistent with the intent and purview of the War Veterans Allowance Act or the Civilian War Pensions and Allowances Act and that the legislation is applied uniformly throughout Canada. The Board may at any time review and alter its own former decisions.

**Pensions, health and social programs.** The Pensions, Health and Social Programs Branch manages a wide range of health, economic support and special programs designed to serve veterans and special categories of civilians who served in close support of the armed forces in wartime, and the spouses, widows/widowers and children of the two groups.

Special programs include a wide range of projects designed to meet specific needs or to perpetuate the memory of deceased veterans. Examples of such programs are: the Assistance Fund, the Educational Assistance Program, funeral and burial assistance, veterans' insurance, and the maintenance of veterans' cemeteries, plots and memorials both in Canada and abroad.

Health care and treatment are provided throughout Canada to eligible veterans and civilians in departmental hospital and veterans' homes, in contract beds or in the veteran's home and community. Health care and treatment provided outside Canada may be paid for by the department if it relates to a pensioned condition resulting from war service. Prosthetic devices are provided to eligible veterans to help minimize handicaps.

The veterans independence program, formerly the aging veterans program, is being extended to assist an even larger segment of the veterans' population. The objective of the program is to enable the aging veteran population to remain independent and healthy in their own homes and communities.

The Pensions, Health and Social Programs Branch also administers a range of legislative measures providing social and financial benefits and provides support services to the Field



Operations Branch, the Canadian Pension Commission, the Bureau of Pensions Advocates, the War Veterans Allowance Board and Service Benevolent Funds.

**The Bureau of Pensions Advocates** provides a free legal aid service to persons seeking to establish claims under the Pension Act, the Civilian War Pensions and Allowances Act and allied statutes and orders. This service includes the initiation of claims, the searching of records, the identification of evidence, the counselling of applicants and the preparation and presentation of claims to the Canadian Pension Commission, the Entitlement and Assessment Boards of the Commission and the Pension Review Board. It also represents applicants for benefits under the War Veterans Allowance Act on appeals to the War Veterans Allowance Board.

**The Veterans Land Administration** is primarily concerned with assisting veterans, their heirs, devisees or personal representatives with acquiring title to the property on which the veteran was established. This establishment program was terminated in March 1975 and the department no longer is involved in the purchase of new property. However, as of March 31, 1986, there were still over 24,000 properties registered under the name of the Director, the Veterans Land Act, which represents a total indebtedness of over \$180 million.

### 6.1.6 Training allowances

Employment and Immigration Canada provides training opportunities to enable workers to respond to the demand for special work skills. Under the national training program, participants are paid allowances to encourage them to upgrade their abilities. For details of Employment and Immigration Canada's programs, see Chapter 5.

## 6.2 Income assistance

### 6.2.1 Canada Assistance Plan

Allowances for the blind (1937, 1952), the disabled (1954) and unemployed or unemployable (1955) were replaced by the more flexible and comprehensive provisions of the Canada Assistance Plan (CAP) in 1966. This plan allows the federal government to share equally with the provinces in providing direct financial assistance to families and individuals who are in need, regardless of the cause. Eligibility is based on a needs test which examines the household's basic requirements and the resources (including income and available assets) available to meet them.

Assistance payable is based on the difference between these. Although each province designs its own program and benefit structure, CAP specifies that assistance should cover certain items. The range of assistance includes food, shelter, fuel, utilities, household supplies, items required to carry on a trade, certain welfare services, and specified health and social services. The costs of work activity projects and certain other employment-related programs are also sharable through CAP. Table 6.7 shows beneficiaries and expenditures for direct financial assistance under CAP.

The Canada Assistance Plan also provides for cost-sharing of care in homes for special care, including homes for the aged, nursing homes, child care facilities and hostels for battered women and children. Since 1977, the major portion of federal costs related to long-term adult residential care have been subsumed under the Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act. Costs of maintaining children in foster homes as well as other protective and preventative services to children are also shared under CAP.

## 6.3 Income insurance

### 6.3.1 Unemployment Insurance

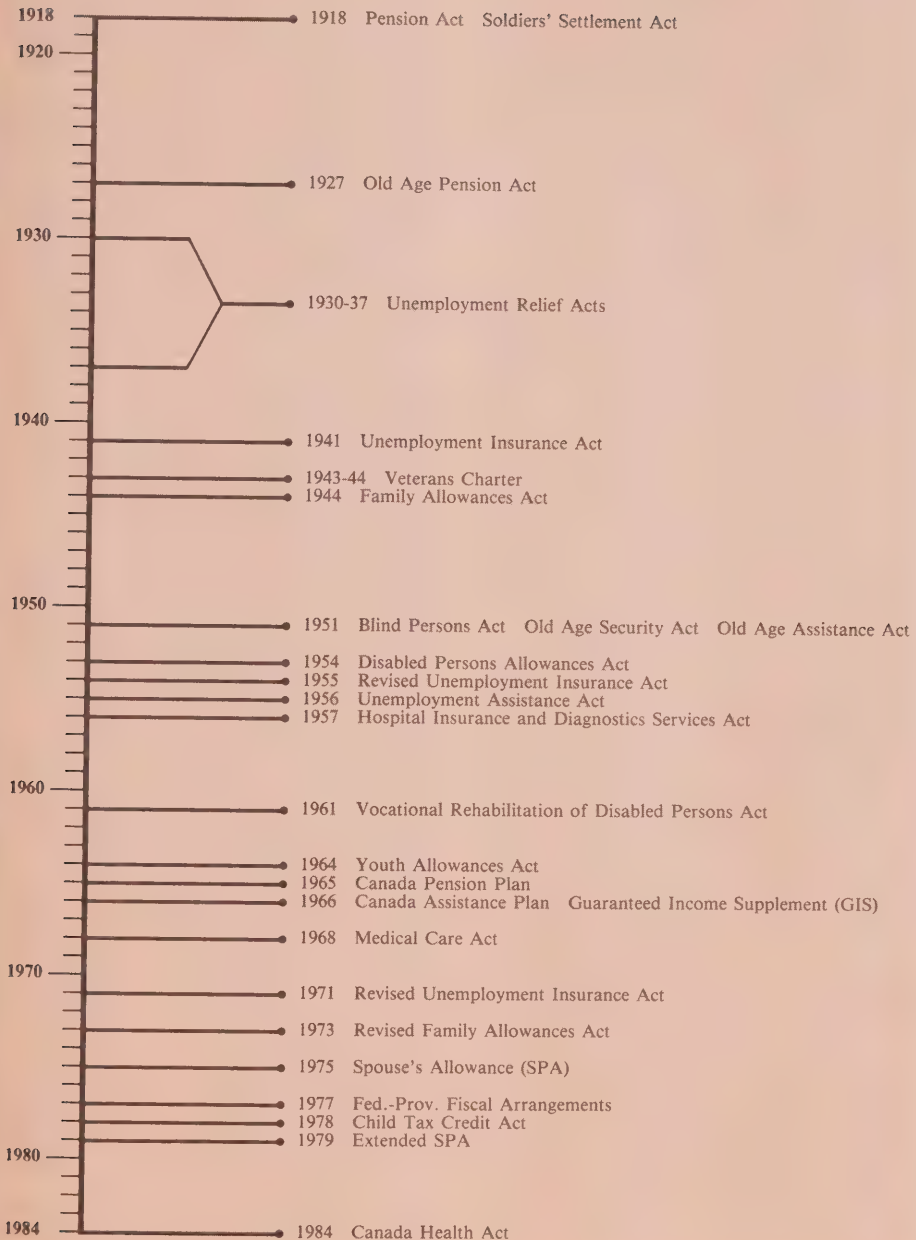
The high cost of relief payments before World War II convinced the federal and provincial governments of a need to establish reserves to meet contingencies of high unemployment and economic depression. The federal government took the initiative in 1941 with the Unemployment Insurance Act. It required the consent of all provinces through an amendment to the BNA Act to permit the federal government to introduce such legislation.

Originally designed to provide income protection for low-income earners, the Unemployment Insurance program was revised several times until, in 1971, it was made universally applicable to all members of the labour force with certain minor exceptions. Benefits were extended to persons at all levels of earnings. The program was also broadened to provide special benefits for those suffering from extended sickness, to women leaving the labour force temporarily because of pregnancy and childbirth or adoption, to unemployed fishermen, to persons enrolled in national training programs, to those participating in work-sharing projects, and to persons involved in job training.

The Unemployment Insurance program is funded by employer and employee contributions.



Chart 6.2

**Major social security legislation**

Funding for certain benefits is provided by the federal government's consolidated revenue fund. Further information on the Unemployment Insurance program and related statistical data are provided in Chapter 5.

The Unemployment Insurance program is only one of the social security measures aimed at workers and their families. The Canada Pension Plan and provincial Workers' Compensation programs are additional income insurance programs offering financial protection.

### 6.3.2 Canada and Quebec pension plans

The Canada Pension Plan and the Quebec Pension Plan (CPP/QPP), introduced in 1966, are considered to be social insurance programs. The plans are funded by equal contributions of 1.8% of contributory earnings from the employer and 1.8% from the employee. Self-employed persons contribute the full 3.6%. In 1986, contributory earnings were those falling between the Year's Basic Exemption (YBE) of \$2,500 and the Year's Maximum Pensionable Earnings (YMPE) of \$25,800. The CPP applies to all provinces, except Quebec, which developed its own parallel social insurance program, the Quebec Pension Plan (QPP). The programs provide the same types of benefits to contributors and their families, with some variations in benefit levels and specific eligibility. Both plans provide retirement benefits, survivor's benefits to a widow/widower and dependent children, a death benefit, disability benefits to contributors forced to cease employment because of disability, and benefits for their dependent children.

There is reciprocity between the two plans to ensure coverage for virtually all workers in the labour force. A dual contributor who has at different times made contributions to each of the plans applies for benefits to the plan relating to his or her usual place of residence at the time of application. In the case of survivor's benefits, the contributor's place of residence at the time of death determines which plan will pay benefits.

As with the Old Age Security program, International Social Security Agreements have been signed with nine countries; four additional agreements are awaiting ratification. Agreements with five countries are in effect for the Quebec Pension Plan.

In June 1986, legislation providing for extensive changes to the CPP was passed by Parliament. The changes were subsequently ratified by the provinces as required under the plan, effective January 1987. The specific provisions are following.

Regional offices across Canada are responsible for direct program administration

while contributions are administered through the taxation systems of the federal and Quebec governments. As of January 1987, the contribution rate rose by 0.2%. Escalation will continue at that rate for an additional four years, and then at a rate of 0.15% for the following 20 years. These rates are subject to change upon review by Ministers of Finance (federal and provincial) every five years.

**Retirement pensions** were previously payable beginning at age 65; however, persons still working could continue contributing until the age of 70. As of January 1987, contributors have the option of receiving retirement benefits as early as age 60. Benefits will be reduced by 0.5% for each month prior to age 65, and increased by the same amount for each month after that age. Benefits are calculated at the rate of 25% of the contributor's average lifetime adjusted pensionable earnings. The maximum monthly retirement pension for 1986 was \$486.11.

**Survivor's pensions** are payable to the family of a contributor who dies, after having contributed to the CPP or QPP for at least one-third of the calendar years for which he or she would have been eligible to contribute. The pension includes a flat-rate component plus an amount based on the imputed retirement pension of the deceased contributor. Age and family status of the surviving spouse affect benefit calculations. In 1986, the maximum benefits payable to a surviving spouse ranged from \$273.35 to \$291.65 monthly under the CPP. QPP benefits ranged from \$291.65 to \$480.87. As of January 1987, persons receiving CPP survivor's benefits continued to do so if they remarried; QPP has offered this provision since 1984.

**Disability pensions** are provided to contributors with a severe and prolonged mental or physical disability that demands withdrawal from the labour force. Under the QPP, workers who are 60 years of age or over and who are unable to fulfil their usual role in the work force because of disability, are considered eligible. Applications for either a CPP or a QPP disability pension are subject to medical review. Previously, applicants were required to contribute for one-third of the calendar years in the contributory period and for at least five of the 10 years prior to disablement. As of January 1987, CPP contributions are required for two of the last three, or five of the last 10 years preceding disablement. Pensions may begin after a three-month waiting period, during which time Unemployment Insurance is available.

As with survivor's benefits, the disability pension consists of a flat-rate component and an imputed, earnings-related portion of the retirement component. In 1986, the maximum disability pension under the CPP was \$455.64; the flat-rate component of this was \$91.06. The maximum QPP disability benefit was \$597.96; the flat-rate amount equalled \$233.38. As of January 1987, the CPP flat-rate was \$233.38, which matches the Quebec amount.

Combined pensions consisting of a surviving spouse's pension and a retirement or disability pension, may be payable to widowed contributors who are otherwise eligible for a retirement or a disability pension. In such cases, a limit equal to the maximum monthly retirement pension is placed on the earnings-related portion of the combined pensions.

**Children's benefits** are payable on behalf of the dependent child of a disability pensioner and are also available (orphan's benefits) for dependent children of a surviving spouse. Generally, benefits are paid until the child reaches the age of 18; they may be extended to age 25 if the child continues to attend school. As of January 1987, benefits are not terminated if the child has ever married. If education is interrupted, benefits are reinstated when the child returns to full-time school attendance. Also, dependent children are eligible for up to two CPP benefits if both parents' earnings have been lost through disability or death. Previously, the child could receive only one benefit. In 1986, the monthly CPP children's benefit was \$91.06 per child; the QPP rate was \$29.00.

**A death benefit** is payable to the estate of a contributor who dies prior to retirement and who has contributed to the plan for a minimum of three years. In 1986, the maximum death benefit was \$2,580 under both CPP and QPP.

**Sharing pension credits.** When a marriage ends in divorce or legal annulment, provision is made for pension credits earned by one or both spouses during their marriage to be divided equally. Currently, the couple must have lived together in marriage for at least three consecutive years; application for division of credits must be made within three years of a divorce becoming final. As of January 1987, division of credits may take place as soon as National Health and Welfare is informed of a divorce or annulment, or may be applied for after a one-year separation. Also, one year after the termination of a common-law relationship, either partner may apply for a division of pension credits accumulated during cohabitation. In all cases, the division of credits may be precluded

by an explicit prior legal agreement. As of January 1987, either spouse in a continuing marriage may apply to split credits earned during their life together. In this case, both spouses must be at least 60 years of age and must have applied for any pension benefits to which they are entitled.

### 6.3.3 Federal social service programs

In addition to the programs providing direct financial benefits, the federal government administers and funds a wide range of service and support programs, health programs, and grants and contributions to a variety of individuals and organizations for research or program delivery, employment programs and others. Health and employment programs are described in Chapters 3 and 5, respectively. The social service components under CAP were described in section 6.2.1. Following are a few other social support programs administered by the Department of National Health and Welfare; they are intended as examples and do not constitute a complete listing.

**The New Horizons program** was established in 1972 with the objective of helping to alleviate feelings of social isolation or loneliness often experienced by the elderly. Grants are available to senior citizens' groups to assist them in helping themselves, other Canadians and the community. In 1984-85 there were over 2,000 projects funded by New Horizons; program expenditures for the year were over \$13 million.

**The National Welfare Grants program** was implemented in 1962 to help develop and strengthen social services and to provide funds for social welfare research. Grants may be given to provincial or municipal social service departments, non-governmental organizations and universities. Fellowships are provided to individuals seeking advanced training in social welfare. In 1984-85, the program expenditure was over \$6 million.

**Under the Vocational Rehabilitation of Disabled Persons program (VRDP),** the federal government contributes 50% of the costs incurred by provinces in providing vocational rehabilitation services to physically and mentally disabled persons. Services include counselling, assessment, restorative services, provision of certain technical aids and the provision of maintenance allowances on an individual need basis. Programs may be administered directly by provincial governments or through provincially supported agencies. In 1984-85, the federal government provided over \$99 million to the VRDP program.



Numerous other grant and contribution programs provide funding for family planning, health research, health protection, health and other services to Indians and volunteer activities.

## 6.4 Provincial programs

Provincial governments provide a variety of income security programs to protect and maintain the well-being of Canadians. The initiatives may be funded solely by the province; some are federally cost-shared. Following are: social assistance, workers' compensation, tax credit programs, direct income supplements and social services.

### 6.4.1 Social assistance

Although the federal government shares in the costs of financial aid for the needy (through CAP), each province bears responsibility for the design, administration and delivery of its own social assistance program. In nine of the 12 jurisdictions, benefits to persons who need long-term assistance are generated by the provincial headquarters, while short-term and emergency payments are issued manually through regional offices of the provincial department of social services or its counterpart. However, in Nova Scotia, Ontario and Manitoba, benefits to meet long-term needs are issued provincially and all other payments (persons in short-term need, emergency cases, transients) are the responsibility of the municipalities.

Social assistance clients may receive benefits to cover costs of food, shelter, fuel, clothing, items of special need and certain other items deemed to be essential to the household. Social services, including training and counselling, drug benefits and other health services may also be provided. Benefit levels vary among jurisdictions and may be affected by the applicant's age, health and employability. Table 6.7 shows recipients and expenditures under the CAP cost-shared social assistance programs.

### 6.4.2 Workers' compensation

Provincial workers' compensation programs provide financial benefits as well as medical and rehabilitative services to workers injured while at work. The programs are administered by provincial boards on behalf of industries and other employers. Funding is provided entirely from employers' contributions; rates vary according to the type of enterprise. Chapter 5 provides details of eligibility and benefits, and also outlines the number of claims and benefit expenditures.

### 6.4.3 Tax credits

In nearly all provinces, tax credits, rebates, or shelter subsidies/grants are available to both

homeowners and renters. These programs have been implemented to support families and the elderly in coping with rapidly rising costs of shelter.

The first programs refunded or deferred most property and school taxes levied on the residences of elderly homeowners. In some cases smaller rebates were paid to homeowners, usually relating the amount of the rebate to income. In the 1970s programs were created to assist renters, particularly the elderly, either through occupancy costs rebates which go directly to the renter, or through shelter allowances which pay all or part of the rent that exceeds a percentage of income ranging from 20% to 30%. The rebates of property tax and occupancy costs are administered by the income tax or property tax collection authorities; shelter allowances are usually paid by the provincial housing authorities. Additional types of tax credit programs have since been introduced by the provinces. For example, since 1981 Quebec has allowed tax-filers to opt for an allowance in lieu of a deduction for child care expenses. Manitoba has provided a cost of living tax credit since 1974. Ontario provides a sales tax grant to seniors, and Yukon pays an annual pioneer utility grant to tax-filers 65 years of age or older. In total, the provinces offer over 40 tax credit/rebate and shelter assistance programs to Canadians. These provincial initiatives form part of the social security system and account for substantial expenditures.

### 6.4.4 Income supplements

Provincial income supplement programs have been designed to assist the elderly, the disabled or low-income families.

**Senior citizens.** All but four provincial governments have instituted income supplements for the elderly. In general, these programs provide a monthly, quarterly or annual income supplement payment to OAS beneficiaries in receipt of the GIS benefit. Three provinces and both territories also extend benefits to SPA recipients. In Manitoba and Alberta benefits are payable also to residents over 55 whose incomes do not exceed specified levels. These programs include: a Guaranteed Available Income for Need (GAIN) for the elderly in British Columbia; the Alberta Assured Income Plan (AAIP) and Alberta Widow's Pension; the Saskatchewan Income Plan (SIP) for the elderly; Manitoba's "55-Plus-A Manitoba Income Supplement"; an Ontario Guaranteed Annual Income System for the Aged (GAINS-A); Special Social Assistance (SSA) in Nova Scotia; the Income



Supplement Program for seniors in Yukon; and Northwest Territories' Senior Citizens' Benefits program.

**Disabled persons.** There are many types of financial support available to disabled individuals. Many receive social assistance under the provincial programs. Others may receive benefits under provincial vocational rehabilitation or income assistance programs, through workers' compensation, federal training allowances or Unemployment Insurance.

Provincial programs cost-shared by the federal government under the Vocational Rehabilitation of Disabled Persons Act are designed to assist physically and mentally disabled persons to become capable of pursuing gainful occupation such as employment in the open labour market, self-employment, homemaking, farm work, sheltered employment or other paid work. In 1984-85, approximately \$200 million (total federal and provincial contributions) was spent through the VRDP program.

Income assistance programs for the disabled include GAIN for the Handicapped in British Columbia, Alberta's Assured Income for the Severely Handicapped (AISH), and Ontario's Guaranteed Annual Income System for the Disabled (GAINS-D). Newfoundland, Quebec and Ontario offer financial assistance to families caring for a disabled child at home.

**Families.** Saskatchewan pioneered in 1974 by introducing a Family Income Plan (FIP) for both working and non-working families. The benefit, which is income-tested, includes provision for a dependent spouse and all dependent children. FIP benefits are considered as part of the social assistance entitlement for eligible families. Quebec introduced a Work Income Supplement program in 1979 for working families with low incomes. Manitoba introduced a Child-Related Income Support Program (CRISP) in 1980 for low-income families. Ontario's Work Incentive Program provides a supplement to social assistance recipients who return to work.

#### 6.4.5 Provincial social services

A broad range of personal social services is provided across Canada. The funding, administration and delivery of such services are particular to each province and municipal jurisdiction. The federal government, through the Canada Assistance Plan, shares in the costs of many of these programs.

These programs vary according to the community and family environment and are

geared to the disadvantaged persons who need support systems to take part in community life. Many programs are oriented toward prevention of need while others involved long-term services. An underlying philosophy is that there should be a system of support for independent living in the home environment, and services to prevent, delay or reduce the need for institutional care of the elderly and disabled. Services also compensate for the absence of family support systems resulting from increased participation of women in the workforce, the geographic mobility of families and the high rate of marriage breakdown.

Services to families and individuals which are supported under the plan include: crisis intervention, information and referral, and social integration services to persons who are, or are at risk of becoming, isolated from community life; protective and developmental services which are oriented toward children as well as day care services for children; and home support services that enable persons to remain in their own home. Several provinces have introduced programs encouraging disabled persons to maintain an independent life style. Services may include provisions of aids and devices and home support. Personal, budget and family counselling assist persons with social problems and aid in preventing further problems. Communities offer activity centres, enrichment programs, sheltered workshops and vocational rehabilitation and day programming for the aged. Provinces also provide nursing and medical services, nutrition counselling, nursing home and intermediate care, residential care, and ambulatory health services. (See Chapter 3 for information on health services.)

### 6.5 International welfare

Canada is involved in social development activities of the United Nations, particularly with the United Nations International Children's Emergency Fund (UNICEF) and in social programs of the Organization for Economic Co-operation and Development (OECD). Federal and provincial departments and agencies participate in the work of several international non-government organizations. Program information is exchanged on social affairs with UN agencies, the Council of Europe, OECD, the Overseas Development Institute and social affairs departments in other countries.

Canadian officials also participate in the International Social Security Association and

the social security program of the International Labour Organization.

## 6.6 Voluntary contribution

Because of the tradition of local administration in Canada and the need for community involvement in social services, voluntary agencies continue to play a major role in the administration of social services.

In the early 1980s about 46,500 agencies were registered as charitable organizations in Canada. In the health and welfare areas they covered community support activities ranging from those which provide direct care for individuals in need to the operation of broad community services.

Voluntary work represents a major contribution to the operation of health and welfare organizations. A survey conducted by Statistics Canada in February 1980 indicated that 15% of the adult population participates in voluntary work. Much of this effort is directed to the

health and welfare field in services, transportation, administration and client support activities.

## 6.7 Analysis of expenditures

Canada's social security system delivered a total of \$47.7 billion in direct financial benefits to Canadians in 1984-85, as compared with \$28.4 billion in 1980-81. During the five-year period, Old Age Security (including Old Age Security, Guaranteed Income Supplement and Spouse's Allowance) remained the largest program, accounting for approximately one-quarter of the total social security expenditure. Unemployment Insurance expenditures showed the greatest change, rising from \$4.7 billion in 1980-81 to \$10.2 billion in 1984-85, an increase of 117%. In 1984-85, Unemployment Insurance expenditures represented 22% of total expenditures as compared to 16% for 1980-81. This increase may be explained by the recession which impacted the program beginning in 1982-83.

### Sources

6.1 - 6.1.3, 6.1.6 - 6.7 Policy Communication and Information Branch, Department of National Health and Welfare.

6.1.4 Communications Branch, Department of Indian Affairs and Northern Development.

6.1.5 Publications and Communications (Charlottetown), Department of Veterans Affairs.

TABLES

.. not available

... not appropriate or not applicable

— nil or zero

-- too small to be expressed

e estimate

p preliminary

r revised

certain tables may not add due to rounding

6.1 Senior citizens' benefits, beneficiaries and net benefit expenditures, fiscal years ending March 31, 1980-85

Province or territory	Old Age Security (OAS) average number of beneficiaries					
	1980	1981	1982	1983	1984	1985
Newfoundland	41,493	42,959	44,206	45,384	46,745	48,086
Prince Edward Island	14,337	14,626	14,850	15,105	15,409	15,618
Nova Scotia	87,905	90,689	92,959	95,230	97,341	99,467
New Brunswick	66,973	69,262	71,075	72,831	74,582	76,248
Quebec	534,106	553,181	570,221	586,104	601,730	616,580
Ontario	812,297	834,312	857,468	878,351	898,651	922,413
Manitoba	115,587	119,251	121,716	124,145	126,325	128,645
Saskatchewan	110,534	113,382	116,184	118,750	121,126	123,448
Alberta	149,539	154,921	159,472	163,944	168,786	174,177
British Columbia	266,784	281,018	291,172	299,738	308,581	317,926
Yukon	678	689	704	730	730	762
Northwest Territories	1,194	1,205	1,249	1,285	1,312	1,343
International <sup>1</sup>	71	664	1,204	1,960	3,144	4,415
Canada	2,201,497	2,276,159	2,342,480	2,403,557	2,464,482	2,529,129
OAS net benefit expenditures (\$'000,000)						
	1980	1981	1982	1983	1984	1985
Newfoundland	88.3	100.3	115.9	132.3	145.6	156.5
Prince Edward Island	30.5	34.2	38.9	44.0	47.9	50.7
Nova Scotia	186.9	211.9	243.7	277.7	302.3	323.0
New Brunswick	143.0	162.1	186.6	212.4	231.8	247.7
Quebec	1,136.6	1,295.9	1,499.2	1,711.8	1,871.4	2,006.5
Ontario	1,723.5	1,950.1	2,245.0	2,559.0	2,788.5	3,000.8
Manitoba	245.5	277.6	318.2	360.8	391.4	416.8
Saskatchewan	234.8	264.7	304.4	345.7	376.1	400.9
Alberta	318.4	362.6	419.1	479.6	526.0	568.3
British Columbia	567.3	657.0	762.6	872.9	957.2	1,032.4
Yukon	1.5	1.6	1.9	2.2	2.4	2.6
Northwest Territories	2.6	2.9	3.5	3.8	4.2	4.4
International <sup>1</sup>	0.2	1.2	1.7	2.9	4.2	5.3
Canada	4,679.0	5,322.1	6,140.6	7,005.3	7,649.0	8,215.9
Guaranteed Income Supplement (GIS) average number of beneficiaries						
	1980	1981	1982	1983	1984	1985
Newfoundland	33,422	34,634	35,685	36,263	37,061	38,291
Prince Edward Island	10,303	10,495	10,671	10,614	10,645	10,795
Nova Scotia	57,505	59,437	61,164	61,178	61,882	62,886
New Brunswick	44,253	45,716	47,067	47,704	48,424	49,790
Quebec	336,012	347,899	359,966	366,427	369,411	376,382
Ontario	358,174	367,523	377,961	370,194	366,642	373,840
Manitoba	63,353	64,276	65,304	63,796	62,991	64,751
Saskatchewan	59,229	60,069	60,813	59,461	58,789	60,231
Alberta	79,890	81,068	81,270	78,928	79,230	82,320
British Columbia	128,840	131,922	133,142	129,992	129,850	134,663
Yukon	361	349	346	343	370	382
Northwest Territories	947	929	944	977	1,048	1,075
International <sup>1</sup>	29	278	492	893	1,468	2,033
Canada	1,172,316	1,204,594	1,234,823	1,226,770	1,227,810	1,257,439
GIS net benefit expenditures (\$'000,000)						
	1980	1981	1982	1983	1984	1985
Newfoundland	47.6	61.2	72.6	80.5	86.4	99.0
Prince Edward Island	13.9	17.7	20.7	22.4	23.6	27.0
Nova Scotia	75.6	97.5	114.8	125.0	131.9	150.4
New Brunswick	59.2	76.3	90.2	99.6	105.6	121.4
Quebec	441.7	573.6	680.9	752.7	786.1	902.3
Ontario	435.9	557.9	648.2	686.1	711.0	838.8
Manitoba	79.9	101.2	116.5	121.9	126.5	150.4

### 6.1 Senior citizens' benefits, beneficiaries and net benefit expenditures, fiscal years ending March 31, 1980-85 (concluded)

Province or territory	GIS net benefit expenditures (\$'000,000)					
	1980	1981	1982	1983	1984	1985
Saskatchewan	76.2	96.2	111.8	117.9	122.6	144.0
Alberta	101.5	127.9	146.6	154.7	161.9	192.8
British Columbia	160.6	205.0	235.3	248.7	259.9	310.3
Yukon	0.5	0.7	0.8	0.9	1.0	1.1
Northwest Territories	1.5	1.9	2.3	2.6	2.9	3.3
International <sup>1</sup>	0.1	0.8	1.3	3.3	5.1	12.2
Canada	1,494.4	1,918.1	2,242.0	2,416.3	2,524.5	2,953.0
	Spouse's Allowance (SPA) average number of beneficiaries					
	1980	1981	1982	1983	1984	1985
Newfoundland	3,054	3,292	3,437	3,537	3,547	3,559
Prince Edward Island	720	734	750	760	748	785
Nova Scotia	4,384	4,661	4,739	4,676	4,770	4,845
New Brunswick	3,315	3,641	3,794	3,932	4,005	4,212
Quebec	23,851	25,283	26,375	27,007	27,281	27,971
Ontario	19,829	21,388	22,946	23,086	23,761	25,287
Manitoba	4,223	4,407	4,374	4,235	4,255	4,563
Saskatchewan	4,117	4,350	4,266	4,060	5,350	5,760
Alberta	5,355	5,544	5,445	5,225	8,416	9,090
British Columbia	8,311	8,579	8,336	8,226	8,416	9,090
Yukon	15	20	17	20	19	23
Northwest Territories	53	39	40	54	72	68
International <sup>1</sup>	—	2	8	26	51	72
Canada	77,227	81,939	84,527	84,843	86,182	90,415
	SPA net benefit expenditures (\$'000,000)					
	1980	1981	1982	1983	1984	1985
Newfoundland	7.9	9.5	11.1	12.4	12.9	13.4
Prince Edward Island	1.6	1.8	2.1	2.3	2.4	2.5
Nova Scotia	8.9	10.8	12.5	13.5	14.3	14.6
New Brunswick	7.2	9.0	10.6	11.9	12.5	13.2
Quebec	47.3	57.7	66.0	73.5	75.8	78.6
Ontario	32.1	40.2	47.4	51.5	55.7	61.0
Manitoba	7.9	9.4	10.5	11.1	11.7	12.7
Saskatchewan	8.0	9.5	10.5	11.0	11.2	12.1
Alberta	10.0	11.8	12.8	13.4	14.3	15.9
British Columbia	15.1	17.8	19.2	20.3	21.6	24.0
Yukon	—	—	—	0.1	0.1	0.1
Northwest Territories	0.2	0.1	0.2	0.3	0.3	0.4
International <sup>1</sup>	—	—	—	0.1	0.2	0.4
Canada	146.1	177.7	202.8	221.5	232.9	248.8

<sup>1</sup> All persons paid under international agreements, including persons outside Canada.

### 6.2 Family Allowances, beneficiaries and net benefit expenditures, fiscal years ending March 31, 1983-85

Province or territory	Average number of children <sup>1</sup>		
	1983	1984	1985
Newfoundland	201,133	197,377	192,550
Prince Edward Island	36,967	36,481	36,186
Nova Scotia	241,701	238,329	235,544
New Brunswick	211,150	208,120	205,111
Quebec	1,706,180	1,672,599	1,648,493
Ontario	2,302,425	2,283,849	2,271,087
Manitoba	290,827	289,853	289,446
Saskatchewan	290,979	291,576	293,585
Alberta	663,625	669,534	668,544
British Columbia	724,483	724,023	726,468
Yukon	7,415	7,052	7,116
Northwest Territories	19,551	19,883	20,249
Canada	6,696,435	6,638,676	6,594,381



## 6.2 Family Allowances, beneficiaries and net benefit expenditures, fiscal years ending March 31, 1983-85 (concluded)

Province or territory	Average number of families		
	1983	1984	1985
Newfoundland	97,800	98,138	97,794
Prince Edward Island	18,538	18,553	18,575
Nova Scotia	129,853	129,645	129,594
New Brunswick	111,039	111,128	111,004
Quebec	960,545	950,911	943,458
Ontario	1,268,643	1,266,020	1,264,423
Manitoba	149,671	150,290	150,929
Saskatchewan	144,271	145,176	146,666
Alberta	350,469	355,220	355,198
British Columbia	398,291	399,674	401,889
Yukon	4,022	3,863	3,902
Northwest Territories	8,573	8,858	9,205
Canada	3,641,715	3,637,476	3,632,637
	Net benefit expenditures (\$'000,000)		
	1983	1984	1985
Newfoundland	66.3	68.6	70.4
Prince Edward Island	12.2	12.7	13.2
Nova Scotia	80.0	83.2	86.4
New Brunswick	69.6	72.6	75.0
Quebec	573.5	586.4	598.3
Ontario	763.5	800.1	837.0
Manitoba	96.4	101.5	106.3
Saskatchewan	96.2	101.9	107.7
Alberta	223.2	236.0	246.2
British Columbia	240.5	253.9	267.1
Yukon	2.5	2.5	2.6
Northwest Territories	6.6	7.1	7.5
Canada	2,230.6	2,326.6	2,417.8

<sup>1</sup> Number of children on whose behalf family allowances are paid.

## 6.3 Family Allowances, 1982-85 (dollars)

Item	1982	1983	1984	1985
Federal rates				
Family allowance	26.91	28.52	29.95	31.27
Special allowance	37.65	41.87	44.68	46.65
Alberta variation				
Child				
0 - 6 years	20.90	22.10	23.10	24.50
7 - 11 years	26.10	27.70	28.70	30.00
12 - 15 years	34.30	36.40	38.60	39.80
16 - 17 years	38.50	40.80	43.30	45.00
Quebec variation				
Child				
0 - 11 years				
1st child	16.15	17.12	17.98	18.77
2nd child	25.65	27.19	28.55	29.81
3rd and each additional child	62.43	66.18	69.49	72.55
Child				
12 - 17 years				
1st child	22.88	24.25	25.11	26.44
2nd child	32.38	34.32	35.68	37.48
3rd and each additional child	69.16	73.31	76.62	80.22
Quebec family allowances <sup>1</sup>				
1st child	7.09	7.52	7.90	7.90
2nd child	9.48	10.05	10.55	10.55
3rd child	11.84	12.55	13.18	13.18
4th and each additional child	14.20	15.05	15.80	15.80

<sup>1</sup> Paid on behalf of children who are not wards of the province.

6.4 Child Tax Credit program, beneficiaries and benefit expenditures, 1982-85<sup>1</sup>

Year and province or territory	Families receiving credit	Children claimed for tax	Amount of tax credit
1982			
Newfoundland	83,842	180,084	55.9
Prince Edward Island	15,750	32,387	10.1
Nova Scotia	108,429	209,063	63.9
New Brunswick	96,338	194,283	60.1
Quebec	732,197	1,383,082	413.4
Ontario	880,052	1,744,774	485.0
Manitoba	121,871	260,264	77.1
Saskatchewan	105,419	238,362	68.9
Alberta	216,871	469,078	124.8
British Columbia	265,035	534,244	147.0
Yukon	2,132	4,553	1.2
Northwest Territories	6,003	15,581	4.6
Outside Canada	3,032	5,812	1.6
Canada	2,636,971	5,271,567	1,513.5
1983			
Newfoundland	78,516	161,734	49.7
Prince Edward Island	14,607	29,510	9.0
Nova Scotia	100,435	192,949	56.8
New Brunswick	91,391	181,297	53.6
Quebec	705,504	1,316,319	386.5
Ontario	895,030	1,781,631	487.3
Manitoba	110,191	235,047	67.3
Saskatchewan	106,324	240,875	67.0
Alberta	211,101	451,285	121.7
British Columbia	253,106	509,621	139.7
Yukon	2,418	4,838	1.3
Northwest Territories	6,689	17,415	5.1
Outside Canada	3,212	6,677	1.7
Canada	2,578,524	5,129,198	1,446.8
1984			
Newfoundland	77,291	159,407	50.7
Prince Edward Island	16,393	34,493	11.0
Nova Scotia	98,363	192,434	57.7
New Brunswick	92,529	183,305	58.1
Quebec	690,985	1,279,744	391.2
Ontario	857,376	1,738,018	487.6
Manitoba	114,990	251,004	74.4
Saskatchewan	108,291	241,576	72.7
Alberta	218,994	465,574	134.2
British Columbia	256,320	514,364	149.3
Yukon	2,545	5,129	1.6
Northwest Territories	6,001	15,333	4.7
Outside Canada	2,238	4,106	1.2
Canada	2,542,316	5,084,487	1,494.3
1985 <sup>1</sup>			
Newfoundland	82,653	168,293	55.7
Prince Edward Island	15,576	32,149	10.8
Nova Scotia	95,700	184,799	58.0
New Brunswick	87,370	170,180	55.6
Quebec	677,155	1,276,794	397.3
Ontario	776,211	1,593,722	441.4
Manitoba	112,490	243,821	75.5
Saskatchewan	103,234	230,603	70.8
Alberta	216,806	463,576	134.2
British Columbia	258,395	520,888	152.8
Yukon	2,180	4,667	1.4
Northwest Territories	6,019	15,734	5.0
Outside Canada	3,302	6,514	1.7
Canada	2,437,091	4,911,740	1,460.4

<sup>1</sup> Taxation years are represented.

## 6.5 War veterans' allowances and pensions, 1980-86

Province	Recipients of allowances <sup>1</sup>						
	1980	1981	1982	1983	1984	1985	1986
Newfoundland	5,469	5,508	5,310	5,265	5,277	5,111	4,964
Prince Edward Island	1,480	1,459	1,442	1,417	1,471	1,489	1,387
Nova Scotia	8,819	8,914	8,816	8,678	8,433	8,161	7,504
New Brunswick	6,292	6,270	6,398	6,291	6,133	5,880	5,459
Quebec	11,379	11,570	11,266	11,193	11,464	11,042	10,258
Ontario	30,859	31,176	29,996	28,464	29,778	30,665	29,064
Manitoba	5,629	5,618	4,388	4,039	4,054	3,971	3,689
Saskatchewan	3,740	3,783	3,635	3,439	3,445	3,276	3,100
Alberta <sup>2</sup>	5,993	5,921	5,280	4,780	4,943	4,980	4,831
British Columbia <sup>3</sup>	13,487	13,391	13,090	12,205	12,253	12,263	11,917
Outside Canada	926	908	1,183	1,280	1,387	1,519	1,653
Canada	94,073	94,518	90,804	87,051	88,638	88,357	83,826
	Benefit expenditures (\$'000,000)						
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86
Newfoundland	16.7	18.9	21.3	23.6	25.0	26.1	24.5
Prince Edward Island	5.0	5.7	6.7	7.5	8.2	8.6	7.9
Nova Scotia	27.8	31.7	37.4	41.6	43.7	45.1	41.5
New Brunswick	21.5	24.7	29.2	32.6	33.8	34.4	31.4
Quebec	34.1	39.8	46.4	52.7	57.8	61.9	58.6
Ontario	78.3	92.1	109.9	122.6	135.4	156.0	155.7
Manitoba	11.2	13.0	15.3	16.8	18.1	21.3	18.7
Saskatchewan	10.3	12.1	14.4	15.6	16.6	16.0	16.0
Alberta <sup>2</sup>	14.9	17.0	18.9	20.8	22.5	25.7	25.9
British Columbia <sup>3</sup>	32.2	36.9	41.8	47.3	52.1	58.8	61.0
Outside Canada	3.5	4.7	5.9	7.3	8.5	11.0	12.8
Canada	255.5	296.6	347.1	388.3	421.7	464.9	453.9
	Payments, veteran disability and dependent pensioners (\$'000,000)						
	1980	1981	1982	1983	1984	1985	1986
Newfoundland	5.7	7.4	8.3	7.7	8.5	8.8	9.7
Prince Edward Island	6.0	6.7	7.5	8.0	8.7	9.1	10.1
Nova Scotia	32.4	36.0	39.5	42.9	46.0	48.6	55.3
New Brunswick	19.9	22.0	24.2	26.1	28.5	29.8	33.3
Quebec	52.5	55.2	61.0	69.3	74.4	77.2	87.4
Ontario	162.2	174.3	189.8	239.2	258.4	267.6	291.5
Manitoba	31.0	39.4	42.9	40.0	42.9	44.2	47.1
Saskatchewan	18.7	20.7	22.6	23.9	25.9	26.8	28.9
Alberta	32.6	36.0	39.5	42.5	45.5	46.8	50.5
British Columbia	77.2	86.9	94.2	100.2	108.0	112.1	123.2
Canada <sup>4</sup>	466.6	515.1	561.0	599.8	646.8	671.0	737.0

<sup>1</sup> As of March 31.<sup>2</sup> Includes data for Northwest Territories.<sup>3</sup> Includes data for Yukon.<sup>4</sup> Includes persons who reside in the territories and outside Canada.

## 6.6 Canada Pension Plan and Quebec Pension Plan beneficiaries and net benefit expenditures, fiscal years ending March 31, 1975-85

Year	Annual average number of beneficiaries				
	Retirement pension	Disability pension	Survivor's pension <sup>1</sup>	Children's benefits <sup>2</sup>	Total
1975	446,571	43,842	130,412	127,704	748,529
1976	546,678	56,779	158,422	145,719	907,598
1977	667,867	71,051	186,706	166,565	1,092,189
1978	755,713	81,806	214,648	177,711	1,229,878
1979	840,972	89,810	241,741	182,458	1,354,981
1980	939,184	98,081	283,747	182,843	1,503,855
1981	1,042,907	106,559	335,861	185,838	1,671,165
1982	1,124,143	116,089	373,738	187,374	1,801,344
1983	1,202,677	128,535	412,183	189,888	1,933,283
1984	1,284,439	143,624	452,832	194,672	2,075,567
1985	1,401,084	159,306	496,753	193,268	2,250,411

### 6.6 Canada Pension Plan and Quebec Pension Plan beneficiaries and net benefit expenditures, fiscal years ending March 31, 1975-85 (concluded)

Year	Net benefit expenditures <sup>3</sup> (\$'000,000)				Total
	Retirement pension	Disability pension	Survivor's pension <sup>1</sup>	Children's benefits <sup>2</sup>	
1975	241.8	78.6	158.6	57.6	536.6
1976	392.0	110.8	216.1	72.5	791.4
1977	606.5	149.9	276.8	87.0	1,120.2
1978	816.3	184.0	335.6	97.9	1,433.8
1979	1,054.9	228.6	408.3	109.1	1,800.9
1980	1,337.3	269.4	488.9	118.1	2,213.7
1981	1,668.3	328.6	590.1	128.7	2,715.7
1982	2,070.5	392.4	709.1	140.0	3,312.0
1983	2,564.6	498.2	866.2	159.4	4,088.4
1984	3,104.7	617.4	1,036.7	179.3	4,938.1
1985	3,691.2	751.8	1,218.4	190.9	5,852.3

<sup>1</sup> "Survivor's" includes one-time death benefits.

<sup>2</sup> "Children's benefits" includes benefits to children of disabled contributors, and orphans.

<sup>3</sup> Payments outside Canada are included as of 1979-80.

### 6.7 Direct financial assistance paid under the Canada Assistance Plan (CAP), fiscal years ending March 31, 1980-85

Province or territory	Beneficiaries <sup>1</sup> (including dependents)					
	1980	1981	1982	1983	1984	1985
Newfoundland	48,500	50,400	54,700	51,900	53,300	49,100
Prince Edward Island	9,367	10,100	11,300	11,300	9,800	9,600
Nova Scotia	51,220	62,400	64,600	69,000	67,500	73,600
New Brunswick	66,312	67,400	62,700	70,100	68,600	69,100
Quebec	511,925	532,900	561,900	675,800	705,900	708,700
Ontario	354,798	389,800	406,800	471,200	484,600	485,800
Manitoba	45,600	46,900	47,800	55,900	59,200	62,800
Saskatchewan	41,390	43,800	48,400	59,700	63,700	64,000
Alberta	76,105	78,100	91,700	130,600	117,100	124,100
British Columbia	122,848	128,000	144,900	228,800	257,100	267,600
Yukon	1,075	1,200	1,500	1,300	1,100	1,500
Northwest Territories	5,190	7,400	6,500	7,300	7,000	7,400
Canada	1,334,330	1,418,400	1,502,800	1,832,900	1,894,900	1,923,300
	General assistance expenditures <sup>2</sup> (total federal-provincial) (\$'000,000)					
	1980	1981	1982	1983	1984	1985
Newfoundland	59.1	66.5	70.8	79.1	88.6	86.1
Prince Edward Island	12.8	15.9	19.6	22.6	19.2	21.3
Nova Scotia	73.6	82.4	98.0	120.1	126.3	139.5
New Brunswick	107.2	126.2	142.2	170.4	174.6	192.9
Quebec	886.8	1,080.1	1,220.4	1,472.3	1,851.8	2,055.3
Ontario	653.8	737.8	845.8	1,047.1	1,200.8	1,406.4
Manitoba	62.7	68.7	74.2	95.3	119.5	149.9
Saskatchewan	83.5	88.0	96.8	132.3	164.3	173.0
Alberta	159.8	178.7	261.4	367.4	401.5	419.6
British Columbia	324.6	385.9	433.2	635.9	769.7	866.5
Yukon	0.8	0.5	2.2	2.9	1.8	2.0
Northwest Territories	5.5	7.6	7.9	9.3	9.5	9.3
Canada	2,430.0	2,838.2	3,272.4	4,154.8	4,927.5	5,521.7

<sup>1</sup> Beneficiaries as of March 31 of each fiscal year.

<sup>2</sup> Total federal-provincial expenditures are estimates. They have been calculated by doubling the federal amount paid for claims received each year.



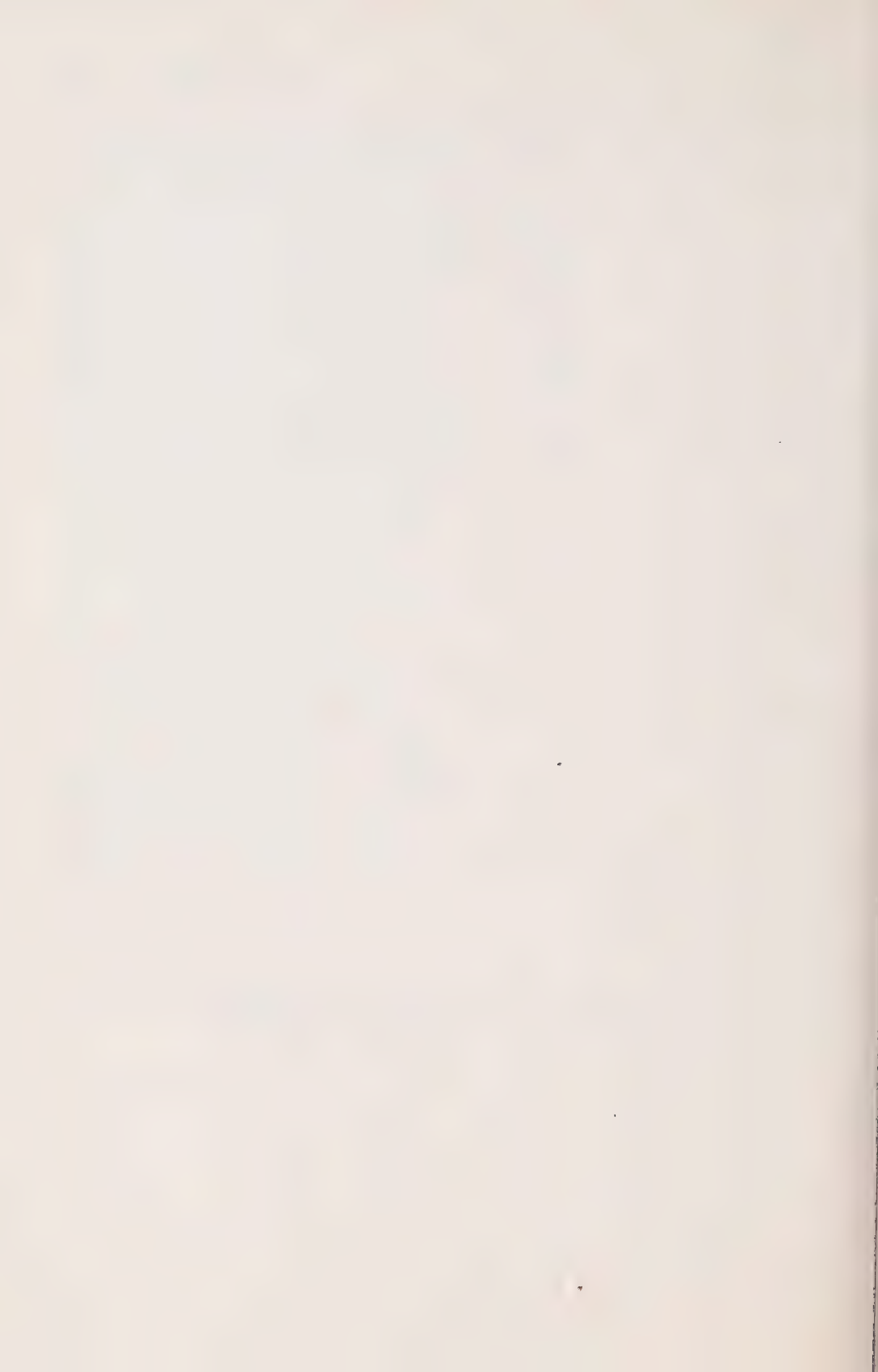
**6.8 Social security expenditures by program, 1981-85<sup>1</sup> (million dollars)**

Program	1981	1982	1983	1984	1985
<b>Federal social security</b>					
Family Allowances	1,850.9	2,019.5	2,230.6	2,326.6	2,417.8
Child Tax Credits <sup>2</sup>	1,069.0	1,513.5	1,446.8	1,494.3	1,460.4
Old Age Security	5,322.1	6,140.6	7,005.3	7,649.0	8,215.9
Guaranteed Income Supplement	1,918.1	2,242.0	2,416.3	2,524.5	2,953.0
Spouses' Allowances	177.7	202.8	221.5	232.9	248.8
National training program	217.2	243.4	219.3	247.0	274.1
Registered Indians, social assistance	142.0	166.6	196.2	216.1	235.4
Registered Indians, social services	37.8	52.4	50.5	59.3	68.1
War veterans' allowances	296.6	347.1	388.3	421.7	464.9
Veteran disability and dependent pensioners	515.1	561.0	621.1	657.8	672.0
CPP and QPP, retirement beneficiaries	1,668.3	2,070.5	2,564.6	3,104.7	3,691.2
CPP and QPP, surviving spouse pensioners	590.1	709.1	866.2	1,036.7	1,218.4
CPP and QPP, disability pensioners	328.6	392.4	498.2	617.4	751.8
CPP and QPP, orphans and dependent children of disabled pensioners	128.7	140.0	159.4	179.3	190.9
UIC, unemployment beneficiaries	3,891.3	4,655.7	8,677.1	8,842.1	8,972.3
UIC, sickness benefits	156.8	167.6	175.2	184.6	209.0
UIC, maternity benefits	243.0	282.8	323.4	353.7	408.7
UIC, retirement benefits	16.3	17.7	18.1	18.6	20.5
UIC, fishing benefits	90.2	102.0	124.3	151.8	170.4
UIC, persons in manpower training	161.6	172.0	211.8	230.6	227.4
UIC, work-sharing benefits	—	1.0	121.1	55.5	32.2
UIC, job creation	—	—	56.7	93.8	130.7
Blind persons' allowances <sup>3</sup>	282.0	—	—	—	—
Disabled persons' allowances <sup>3</sup>	190.0	—	—	—	—
CAP, general assistance <sup>3</sup>	2,838.2	3,272.4	4,154.8	4,927.5	5,521.7
CAP, homes for special care <sup>3</sup>	541.7	740.2	760.2	780.8	798.2
CAP, child welfare <sup>3</sup>	327.0	299.3	357.6	314.4	306.1
CAP, other welfare services and work activity <sup>3</sup>	756.1	884.9	1,031.5	1,101.0	1,194.8
Vocational rehabilitation of disabled persons <sup>3</sup>	63.3	78.8	110.8	134.8	199.6
<b>Provincial social security<sup>4</sup></b>					
Workers' compensation, permanent disability <sup>2</sup>	392.6	471.6	590.6	737.6	871.2
Workers' compensation, temporary disability <sup>2</sup>	709.1	837.6	1,029.7	1,100.5	1,207.0
Workers' compensation, medical aid <sup>2</sup>	251.5	318.2	346.3	416.2	445.9
Tax credits and rebates	1,431.0	1,310.7	1,618.9	1,616.4	1,704.9
Other welfare programs	1,410.8	1,427.8	1,811.2	2,064.3	1,868.6
Municipal social security <sup>4</sup>	400.7	420.6	471.1	524.2	580.8
<b>Total, expenditures<sup>3</sup></b>	<b>28,415.4</b>	<b>32,261.8</b>	<b>40,874.7</b>	<b>44,415.7</b>	<b>47,732.7</b>

<sup>1</sup> Fiscal year ending Mar. 31, unless otherwise noted.<sup>2</sup> Calendar year 1985 data are preliminary.<sup>3</sup> Total federal-provincial expenditures.<sup>4</sup> Excluding CAP cost-sharable expenditures.**Sources**

6.1 - 6.4, 6.6 - 6.8 Policy Communication and Information Branch, Department of National Health and Welfare.

6.5 Publications and Communications (Charlottetown), Department of Veterans Affairs.



CHAPTER 7

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# HOUSING AND CONSTRUCTION

## CHAPTER 7

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# HOUSING AND CONSTRUCTION

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THEN




In 1881 the average number of inhabitants per home in the Territories was 11.1, compared with 5.4 in Ontario. (1891)

In 1941 only approximately 45% of Canadian homes were equipped with a bath or shower. Just over 60% were equipped with electric lighting. (1956)

In 1921 over 72 p.c. of homes built in Canada were made of wood; however, the percentage had been even higher in 1891, at over 80 p.c. (1927-28)

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NOW

1986 was the busiest year for residential construction in Canada since 1978, with dwelling starts totalling 199,785 units, up 20% since 1985.

Price increases for houses, in 1986, were largest in Toronto (16.6%) and in Kitchener (14.5%). House prices rose the least in British Columbia, up 0.5% in Vancouver and dropping 5.1% in Victoria.

Support for the new and existing subsidized housing units resulted in expenditures of \$1,145.4 million in 1980. The existing portfolio now under administration totals 543,300 units.

In 1986, piped gas was used as the principal heating fuel in 45.0% of homes, electricity in 28.3% and oil in 20.1%. Oil, predominant during the 1970s, was surpassed by gas in 1980 and subsequently by electricity in 1985.

## CHAPTER 7

# HOUSING AND CONSTRUCTION

## 7.1 Housing supply and costs

### 7.1.1 House-building activity

Dwelling starts totalled 199,785 units in 1986, 20% higher than the 165,826 starts reported in 1985, and represent the busiest year for residential construction since 1978.

The pattern of starts during the year was heavily influenced by interest rate movements. Mortgage rates rose from a range of 9.75% to 11.75%, depending on mortgage terms, at the start of the year to a range of 11.75% to 12% in February, dropped to a range of 9.75% to 11% in June, and stabilized thereafter. In response, the seasonally adjusted annual rate of starts averaged 167,000 in the first quarter but advanced strongly in the second and third quarters to as high as 226,000 in September, then dropped to 207,000 in December.

The expansion in residential construction in 1986 continued the broadly based rebound that started in 1985. All types of housing recorded higher starts levels. Fueled by strong buyer confidence, the continuation of economic growth, and the lowest mortgage rates since 1979, single-detached starts increased 22% to 120,008, the highest level since 1976.

Other developments in combination with the economy and interest rate factors were responsible for the 19% jump in multiple-unit starts to 79,777. The key developments were tight rental markets (vacancy rates averaged 1.6% in 1986), renewed interest in low-rise rental buildings among small investors, especially in Quebec (partly as a result of the \$500,000 capital gains tax exemption), and expanded condominium activity, particularly in British Columbia and Ontario.

Housing completions are a lagged function of housing starts. Accordingly, the rebound in starts that began in the second half of 1985 and continued into 1986 caused completions for 1986 to rise to a seven-year high of 184,605.

### 7.1.2 Construction, land and housing costs

The new housing price index moved up 8.5% between 1985 and 1986. In relation to the 4.2% inflation rate over the same period, new house prices

in real terms increased 4.2% in 1986. The strong rise in the index in 1986 coupled with smaller increases in 1984 and 1985, more than compensated for declines in 1982 and 1983. As a result, an average-priced new house in 1986 was 4.4% more expensive than in 1981. In comparison, the Consumer Price Index rose 32.5% during the same period.

Residential building materials costs, labour wages, and land costs rose 7.9%, 2.5% and 5.7%, respectively, in 1986. The disparity between these rates of input cost increase and the 8.5% rise in house prices implies some increase in builders' profit margins, particularly in Ontario.

The behaviour of house prices at the metropolitan level varied considerably. The two largest increases were 16.6% in Toronto, Ont. and 14.5% in Kitchener, Ont., while prices in British Columbia showed the least upward movement, rising 0.5% in Vancouver and dropping 5.1% in Victoria. After declining by a total of 20.2% from 1981 to 1985, prices in Edmonton, Alta. increased 7.3% in 1986.

As in 1985, the increase in shelter cost was higher for rented than for owned accommodation, but the difference narrowed. According to the Consumer Price Index, the respective rates of increase were 4.1% for renters and 3.7% for owners. Among components of the cost of owned accommodation, the most noticeable increase reported was for replacement cost, which rose 8.9%. As a result of the fall in world oil prices, water, fuel, and electric costs dropped 2.2%.

## 7.2 Housing markets

### 7.2.1 Provincial trends

Starts at the provincial level, in 1986, reflected the national trend, increasing in all provinces except New Brunswick. The rate of increase ranged from under 2% (Alberta and Newfoundland) to over 41% (Prince Edward Island). The variability was a result of differences in economic performance, net interprovincial migration flows, and provincial housing cycles. Because of booming activity in the two largest provinces, Ontario and Quebec, where

Chart 7.1  
Dwelling starts, completions and under construction





starts increased in both cases by 26%, the rates of increase in all other provinces except Prince Edward Island were below the national average.

In British Columbia, housing starts rose from 17,969 in 1985 to 20,687 in 1986, a 15% increase. Expo '86 and more favourable inter-provincial migration flows contributed to the growth, which was spread evenly across single-detached and multiple-unit starts. For the second year in a row, condominium starts jumped by approximately 80%.

A weak provincial economy limited house-building activity in Alberta. Overall, starts rose marginally from 8,337 in 1985 to 8,462 in 1986 on the strength of a modest recovery in multiple-unit starts, which nevertheless remained extremely depressed because of high vacancy rates dating back to 1982. Despite two consecutive years of increase, total starts were only 16% above the 30-year low recorded in 1984.

In response to continued sluggish economic performance, dwelling starts in Saskatchewan remained virtually unchanged for the second successive year, totalling 5,510 units in 1986, compared to 5,354 in 1985. Multiple-unit starts fell for the third year in a row, but the 19% drop was more than compensated for by a 17% increase in single-detached starts, partly a result of provincial assistance to first-time home-buyers.

Above-average economic growth and below-average unemployment rates contributed to the best year for residential construction in Manitoba since 1978. Dwelling starts increased by 17% to a total of 7,699. Single-detached starts increased 20% to 4,791, the highest output since 1974. Multiple-unit starts were also strong, rising 14%.

In Ontario, the continuation of strong economic growth, job creation, and substantial migration inflows supported a 26% increase in housing starts from 64,871 in 1985 to 81,470 in 1986, a 10-year high. Single-detached starts totalled a record 56,448, increasing 30%, but multiple-unit starts also rose, increasing 17%, as a result of an active condominium market.

The 26% jump in housing starts in Quebec matched the rate of increase for Ontario, as starts rose for the fourth consecutive year to a 10-year high of 60,348. Multiple-unit starts grew by 24%, reaching 36,656, a record level. Strength came from continued interest among investors in small-scale walk-up rental projects, along with a moderate expansion in condominium activity. Single-detached starts increased 28%.

New Brunswick was the only province in which starts fell in 1986, dropping 2% to 4,045. Multiple-unit starts were wholly responsible for the weakness, slipping 10%, in response to high

vacancy rates, from the nine-year high established in 1985. Single-detached starts were unchanged from the 1985 level.

In Nova Scotia, dwelling starts increased 9%, from 6,923 to 7,571 in 1986; the best year for residential construction since 1973. Strength was concentrated in single-detached starts, which increased 14% and accounted for 85% of the overall increase.

Prince Edward Island led all provinces in 1986 with a 41% increase in dwelling starts. The 1,110 starts reported was the highest output since 1978. The expansion was broadly based — single-detached starts and multiple-unit starts grew at similar rates.

As a result of weak economic growth, chronically high unemployment, and continued outflows of migrants, starts in Newfoundland were flat for the second consecutive year. The 1% rise in starts, from 2,854 in 1985 to 2,883 in 1986, was the second lowest rate of increase among the provinces. Multiple-unit starts recovered enough to compensate for a marginal decrease in single-detached starts.

## 7.2.2 Lending statistics

The relative importance of National Housing Act (NHA) lending activities has varied over the years. In 1986, NHA financing accounted for about one-fifth of the total lending. The characteristics of borrowers which follow are therefore based on about one-fifth of all borrowers' characteristics.

In the new-housing market, the average family income of purchasers of single-detached dwellings stood at \$46,234 in 1986, a rise of 6.0% from 1985. The average age of borrowers remained virtually unchanged in 1986 at 32.6 years, compared to 32.7 years in 1985. The average sale price of a new single-detached house was \$85,327 in 1986, up 6.1% from 1985.

In the existing-housing market, the income of the typical buyer of a single-detached dwelling was significantly lower (13.2%), at \$40,114, than that of the new-house buyer; the buyer was slightly older (33.1 years compared to 32.6 years); and the average purchase price of \$65,388 was 23.4% lower than the new-house price. In a year-to-year comparison, the purchase price of a typical NHA-financed existing dwelling had risen by 8.7% since 1985. The average family income of a typical buyer rose by 5.4%. The average age of the borrower remained virtually unchanged (33.1 years in 1986 and 33 years in 1985), and the average floor area of the dwelling was marginally smaller in 1986 (at 104.3 m<sup>2</sup>) than in 1985.

Unlike in past years when condominium housing was the lowest-priced home-ownership unit

available, thereby catering to the modest-income and retirement segments of the population, in 1986 NHA financing of new condominium-type housing was concentrated in a small number of large luxury units. As a result, the average sale price of \$90,848 for a new condominium was well above the price of \$85,327 for a new single-detached dwelling. In addition, it was 40.7% above the respective 1985 price and the average floor area of 116.1 m<sup>2</sup> was larger by 10.6% than the 105.0 m<sup>2</sup> in 1985. The average age of the purchasers was 37.1 years, compared to 39.1 years of age in 1985, and the average buyer income of \$49,644 was 27.7% above the 1985 income. Developments in the existing condominium markets were less dramatic than in the new markets. However, the typical NHA-financed condominium unit still sold for \$69,770, which was 6.7% above its single-detached counterpart, and it was also 21.1% above the 1985 average price. The average age of the typical purchaser was 35.0 years, virtually unchanged from 35.1 years of age in 1985, the floor area was 103.6 m<sup>2</sup> compared to 103.3 m<sup>2</sup> in 1985, and the average income of the purchaser, at \$41,262, was 11.6% above that in 1985.

### 7.2.3 Mortgage lending

In tandem with the favourable housing climate, 1986 was a record high mortgage lending year, improving on the record dollar and dwelling unit volumes established in 1985. Institutional lenders approved approximately \$35.1 billion of residential loans for some 698,580 dwelling units, increases of 27% and 14% respectively over corresponding 1985 totals of \$27.7 billion and 614,760 units. Although both lending for new and for existing housing was higher in 1986, existing loans were the major source of strength, accounting for 80.9% of the \$7.4 billion increase in mortgage volumes between 1985 and 1986.

Some change occurred in the market shares of the various types of lenders in 1986. Chartered banks increased their domination of the market with a penetration ratio of 52%, up from 48% in 1985. Behind chartered banks were trust and loan companies, registering market shares of 26% and 13%, respectively. Life insurance companies, once key players in the residential mortgage market, captured just 7% as they continued to hold the majority of their loan portfolios in non-residential property.

During the last 10 years (1976 to 1986), the proportion of mortgages insured under the NHA was as high as 43% in 1977, declining gradually thereafter. In the last two years (1984 to 1986), the rate of decrease accelerated. An 11 percentage point drop between 1984 and 1985 was followed in 1986 by a further slide from 28% to 20%. Unlike 1985,

when the dollar volume of NHA-insured financing of new multiple-unit housing out-performed conventional financing of such housing, conventional loans in 1986 out-performed NHA-insured mortgages in all lending categories.

There were three other interesting developments in the mortgage market in 1986. The first was that major lenders made 10-year money available on an experimental basis to gauge demand for long-term financing. The second was a further extension of choice in the mortgage market through the offer of pre-approved financing at guaranteed interest rates.

Finally, 1986 marked the introduction of mortgage-backed securities (MBS), designed to foster the reappearance of mortgage terms longer than five years. Mortgage-backed securities have been enthusiastically received in the marketplace.

## 7.3 Canada Mortgage and Housing Corporation

Canada Mortgage and Housing Corporation (CMHC) is the federal government's housing agency, charged with the administration of the National Housing Act (NHA). It is a Crown corporation with a board of directors reporting to a minister responsible to Parliament.

Under the terms of the NHA, the Corporation is authorized, on the government's behalf, to establish a system of mortgage loan insurance; to acquire lands for public purposes; and to assist Canadians, mainly by the provision of loans and contributions, in gaining access to suitable accommodation, whether as homeowners, tenants or members of co-operative organizations; and in improving existing dwellings and the quality of their community environment. It also has a general mandate to improve the quality of housing and community planning through research, development and the dissemination of information, and to act as a policy advisor to the government.

In 1986, the Corporation administered a \$9.7 billion portfolio of loans and investments, as well as some 3,027 dwelling units owned by CMHC and 12,635 dwelling units owned by the CMHC mortgage insurance fund.

CMHC is responsible for grants, contributions and subsidies. These amounted to under \$1.4 billion in 1986, down from a high of almost \$1.8 billion in 1983. The bulk of these payments are directed to social housing assistance.

### 7.3.1 Housing policy and programs

In 1985, CMHC housing programs came under close scrutiny during the government's extensive consultations with representatives of provincial,

territorial and local governments, participants in the housing sector and other interested parties.

In the area of social housing, a new housing policy and thoroughly revamped housing programs were introduced in 1986 which targeted all financial support to Canadians in greatest need.

In the area of market housing, proposals for modifications to the mortgage loan insurance program were scheduled to be brought forward in 1987.

In the upcoming years, attention will be focused on a number of policy areas in order to help the Corporation and the government prepare for future challenges in housing and will involve an examination of policy alternatives for housing the elderly, major reviews of renovation policy, and of the options available for preserving the existing social housing stock.

### 7.3.2 Market housing support

**Loan insurance.** CMHC insures loans made by approved lenders to prospective buyers of new and existing properties and to builders. An approved lender means a bank, loan, insurance, trust or other company or corporation, trustee of trust funds, building society, credit union, *caisse populaire* or other co-operative credit society authorized to lend money on the security of real or immovable property, approved by CMHC for the purpose of making loans under the NHA.

The mortgage insurance fund is created from premiums paid by NHA borrowers. Essentially, in return for a premium, CMHC agrees to reimburse the lender against losses incurred as a result of borrower default. The premium is paid by the borrower and can be amortized over the duration of the loan. Insurance in force stood at \$39.3 billion in 1986.

**Mortgage-backed securities.** CMHC successfully introduced the mortgage-backed securities program in 1986. This new financial instrument will assist in increasing the supply of residential funds and facilitating longer-term mortgages, and, at the same time, provide a secure investment for Canadians. The program was launched in December 1986 and was enthusiastically received by investment dealers and their clients.

**Index-linked mortgages.** A new co-operative housing program was also implemented in 1986. This program is intended to provide an alternative to households which are unable to afford home ownership. The program uses an innovative financing technique called the index-linked mortgage and will operate as an experimental program for a five-year period.

Eligible co-operatives may finance up to 100% of eligible capital costs through an index-linked

mortgage insured by CMHC. A portion of the units, 30% overall and a minimum of 15% in each project, must be made available to households which would otherwise have to pay 30% or more of their household income on the private market, and to those with special housing needs. This is determined by a rent-to-income scale.

### 7.3.3 Social housing support

New arrangements for the delivery and financing of social housing programs were successfully negotiated with nine provinces and the two territories in 1986. Under these arrangements, 19,189 subsidized housing units were committed and some 35,500 units received assistance for renovation and rehabilitation, including increased assistance to housing the disabled.

Support for the new and existing subsidized housing units resulted in expenditures of \$1,145.4 million in 1986. The existing portfolio now under administration totals 543,300 units.

**Non-profit housing program.** This program provides for subsidized rental housing projects which are owned and operated by private or public non-profit corporations or co-operatives. Rents are calculated according to a rent-to-income scale and are adjusted to household incomes. The annual subsidy for projects without care or support services is equal to the difference between the eligible annual operating costs and revenues of the project. For projects with special services or facilities, annual assistance is the difference between the amount required to amortize eligible costs over 35 years at agreed market rates and the amount required to amortize such costs if the interest rate charged was 2% per annum.

**Urban native non-profit housing program.** Assistance to low-income people of native ancestry, living in urban areas, is provided through this program. The assistance is for non-profit, rental or co-operatively owned housing and is scaled so that tenants pay no more than 25% of their adjusted income for rent. The annual subsidy is determined on the same basis as the non-profit program.

**Rent supplement program.** This program provides for the leasing of units from private landlords and co-operatives to households who pay 30% or more of their gross income for housing on the private market, by providing assistance to reduce their rent to a specific portion of their income. This assistance is based on an agreed market rent charged according to a rent-to-income scale.

**Residential Rehabilitation Assistance Program (RRAP).** Loans are available to assist in the repair and rehabilitation of residential dwellings on a universal basis, including loans to Indians on



reserves. The nature and quality of the work is expected to ensure a further useful life of the property for 15 years.

Homeowner RRAP provides loan assistance to needy households. A portion of the loan may be forgiven, depending on household income and an assurance of continued occupancy for five years.

Rental RRAP provides a forgivable loan, the amount of which depends on the actual cost of repairs and the relationship of the post-RRAP rents to the average market rents. The landlord must enter into a rental agreement which controls rents for a period of 15 years.

RRAP for the disabled provides a forgivable loan to make existing homeowner or rental housing more accessible for disabled persons.

**Rural and native housing.** This program provides housing on a home-ownership, rental or lease-purchase basis to rural and native people in need, living in communities of up to 2,500 in population.

Ownership clients receive subsidies based on their adjusted household income and the amount required to amortize the mortgage plus taxes and eligible heating costs. Rental clients pay rents which are calculated according to a rent-to-income scale and to adjusted household income.

**Emergency repair program.** Under this program, contributions are provided to eligible clients in rural areas for emergency repairs required to eliminate health and safety threats to the occupants of sub-standard existing housing.

**Housing for Indians on reserves.** Indian and Northern Affairs Canada (INAC) is the federal agency responsible for housing on Indian reserves. CMHC makes the Non-Profit Program available to Band Councils and individual Indians, as part of the INAC On-Reserve Housing Program, with the assistance available being equivalent to writing down the mortgage interest rate to 2%.

### 7.3.4 Research, development and information

CMHC undertakes research and development activities on the social, economic, and technical aspects of housing and community planning and development.

In addition, CMHC advises the federal government in matters related to housing policy, undertakes housing program evaluations and produces data and statistics on housing and building activity in Canada.

CMHC consults with and uses the services of individuals, educational institutions, and industrial and professional firms and organizations, as well as other government agencies, to supplement the work of its staff on directed research and development activities.

Support for independent research initiatives, innovative housing product development and graduate scholarships is provided through the External Research Program, the Housing Technology Incentives Program and the CMHC Scholarships Program. Through the Canadian housing information centre and public information programs, the Corporation maintains and disseminates research results and information on housing to the public, including those with special interests in the field. This is done in order to promote general awareness of current housing issues and developments.

## 7.4 Census and survey data on housing

While Canada's population increased by 4.2% since the last Census, the number of occupied private dwellings, recorded in the 1986 Census, grew by 9.4% or 776,000 units — more than twice the percentage growth in the population.

The number of occupied private dwellings totalled just over 9 million, up from 8.3 million in 1981. The growth in occupied private dwellings for the 1981-86 period, however, was much lower than the average of 16% recorded in the four previous Censuses. This decline in the growth rate is due in part to the slow-down in population growth and also to the maturing of the baby-boom generation, many of whom established new households during the 1970s.

### 7.4.1 Home-ownership trends

Following a slight decline in home ownership over the 1961-76 period, the pattern of home ownership has not changed significantly throughout Canada since 1976. Overall, 62% of all private dwellings in Canada were owner-occupied. But ownership varied from about 28% in the Northwest Territories to about 80% in Newfoundland.

In 1986, 17% of all household maintainers under the age of 25 were homeowners. For the 25 to 34 year age group, the proportion increased very sharply to about 49%, and reached a peak of 76% for the group aged 45 to 54. Among the elderly, the proportion of homeowners was less than for the middle-aged groups, with 69% for the group aged 65 to 74 years, and 57% for the group 75 years and over. These figures reflect a change in lifestyle for some seniors who move to rental apartments or institutions to avoid home maintenance.

This pattern of home ownership reflects the notion of the "life cycle" of most households. First, young householders tend to rent their dwellings, becoming homeowners later, and remaining so until much later in life when housing need again change.



In summary, the period 1981 to 1986 has seen a continuation of previously established trends in households and families.

#### 7.4.2 Household facilities and equipment

The annual household facilities and equipment survey provides a wide range of information on both the characteristics of Canadian dwellings and the facilities and equipment that they contain. It provides a changing picture of the physical standard of living in Canada. The survey also reveals trends in consumer preferences for household equipment and it charts changes in the types of dwellings Canadians inhabit. The 1986 survey covered items such as type of heating equipment and heating fuel used, and household equipment such as refrigerators, freezers, microwave ovens, dishwashers, clothes dryers, television sets and video-cassette recorders. The sample included about 35,000 households, representing virtually all private households in Canada. Unlike decennial Censuses, the sample survey cannot produce data for smaller localities and areas, but much of the information is available for individual provinces and selected metropolitan areas.

In 1986, piped gas was used as the principal heating fuel in 45.0% of homes, electricity in 28.3% and oil in 20.1%. Oil, predominant during the 1970s, was surpassed by gas in 1980 and subsequently by electricity in 1985. The rate of decline in recent years in the usage of oil has slowed (1.8 percentage points in 1986 and 3.4 percentage points in 1985).

### 7.5 Construction

#### 7.5.1 Value of construction work

Data on construction activity represents the estimated total value of all new and repair construction put in place by contractors and by the labour forces of utility, manufacturing, mining and logging firms, government departments, homeowner builders and other persons or firms not primarily engaged in the construction industry.

All estimates given for cost of materials used are based on ratios of this item to total value of work performed, derived from annual surveys of construction work performed by contractors and others and applied to the total value-of-work figures. Estimates of labour content are similarly based but are also adjusted to include working owners and partners and their withdrawals.

#### 7.5.2 Building permits issued

The estimated value of proposed construction is indicated by the value of building permits issued.

Building permit data are collected by Statistics Canada from approximately 2,400 municipalities across the country and are available for individual municipalities, metropolitan areas, provinces, economic areas and Census divisions.

The total value of permits issued for building construction in 1985 was about \$19.5 billion, up from \$15.5 billion in 1984 and \$14.5 billion in 1983. Residential construction value was \$10.9 billion in 1985 compared to \$8.5 billion in 1984 and \$8.9 billion in 1983.

### 7.6 Capital expenditures

Total capital expenditures in Canada during 1986 were expected to reach \$85.8 billion, an increase of 4.6% over the \$82.1 billion in 1985, which was an 8.9% increase over the \$75.4 billion in 1984. These estimates were in current dollars without any adjustment for price increase and reflected the intended outlays by respondents in a Statistics Canada capital and repair expenditures survey. The survey covered about 28,000 business establishments, educational and other institutions and governments at all levels.

The 1986 total for the acquisition of machinery and equipment was estimated at \$33.8 billion, 6.0% above the \$31.9 billion in 1985 which was 7.7% higher than the \$29.6 billion in 1984. Total construction was estimated to increase by only 3.7% in 1986 to \$52.0 billion, after a gain of 9.7% in the 1985 total of \$50.2 billion compared with the \$45.8 billion in 1984. These estimates included \$16.6 billion, \$14.4 billion and \$12.6 billion for residential construction in 1986, 1985 and 1984, respectively. Non-residential construction was estimated to be \$35.3 billion in 1986, \$35.8 billion in 1985 and \$33.2 billion in 1984.

Capital expenditures in one region may have income-giving effects in others. For example, spending millions of dollars on plant and equipment in Western Canada may generate considerable activity in machinery industries in Ontario and Quebec as well as construction activity in the western provinces.

### 7.7 Price indexes

Statistics Canada compiles price indexes relating to outputs of industries specializing in construction work, selected categories of capital expenditure and other related indexes. These data are available in summary in a monthly publication, *Construction price statistics*, and in detail from the Canadian socio-economic information management system (CANSIM), a Statistics Canada computer data bank.

Chart 7.2  
 Value of building permits issued  
 Total residential and non-residential



**New housing price indexes** measure changes in selling prices of new houses constructed by large- and medium-volume builders in metropolitan areas. Prices used are the selling prices agreed upon between builder and buyer at the time a contract is signed. The total index includes the house and the serviced lot on which it stands (except for a few areas, principally in Quebec, where the servicing costs are paid, not to the builder as part of the purchase price, but to the local municipality in property taxes). They exclude legal fees, provincial land transfer taxes and similar costs to the buyer in acquiring the property. Price movements cover single unit houses, semi-detached and row condominiums (Table 7.3).

**Construction union wage rate indexes** measure wage rates for 16 main trades in 22 metropolitan areas. The index includes the basic rate for hourly wages and supplements. The supplements include such elements as vacation pay, statutory holiday pay, pension contribution, employer contribution to private plans, health and welfare, industry promotion and training fund. Weights are based on estimates of gross earnings of each trade in each metropolitan area, derived from Census data (Table 7.7).

**Output price indexes of non-residential construction** measure the change in estimated contract amounts for the construction of selected non-residential buildings as shown for Halifax, Montreal, Ottawa, Toronto, Calgary, Edmonton and Vancouver in Table 7.8. Office buildings, warehouses and shopping centres were selected to be representative of commercial construction. Institutional and industrial construction is reported by schools and light industrial buildings, respectively. Included as measures of output are prices for materials, labour, use of equipment, sales taxes, job

overhead and profit. They reflect conditions of the local market and also the results of productivity in putting the work in place (Table 7.8).

**Highway construction price indexes.** These base-weighted indexes relate to prices paid by provincial governments in contracts awarded for highway construction. The indexes measure the effect of price change on the cost of specified new highway construction projects represented by contracts of approximately \$50,000 or more awarded by provincial governments. Prices contained in the index are for units of construction work put in place by contractors. Also included are prices of materials usually supplied by the highways department such as culverts and asphalt (Table 7.9).

**Construction building materials price indexes** are base-weighted indexes measuring price changes over time for a selection of principal commodities used in the building construction industry. They are divided into four classes of activity — structural, architectural, mechanical and electrical — for residential and non-residential fields. Prices are manufacturers' selling prices, adjusted for changes in federal sales taxes.

**Machinery and equipment price indexes.** Based on the input/output structure of industries and commodities, these indexes indicate variations in estimated purchase prices of machinery and equipment bought by Canadian industries of both domestically produced and imported goods. Table 7.21 shows indexes by industry of purchase. Also available on CANSIM are sub-indexes by origin and by selected commodity. Other types of capital expenditure price data available from Statistics Canada are measures applying to total capitalized cost for certain categories of investment for electric utilities, process industries, chemical and petrochemical industries and telecommunications.

## Sources

7.1 – 7.3 Canada Mortgage and Housing Corporation.

7.4 – 7.4.1 Housing, Family and Social Statistics Division, Statistics Canada.

7.4.2 Household Surveys Division, Statistics Canada.

7.5 – 7.6 Science, Technology and Capital Stock Division, Statistics Canada.

7.7 Prices Division, Statistics Canada.

# TABLES

.. not available  
 ... not appropriate or not applicable  
 — nil or zero  
 -- too small to be expressed

e estimate  
 p preliminary  
 r revised  
 certain tables may not add due to rounding

## 7.1 Dwelling starts by principal source of financing, 1983-86 (dwelling units)

Source of funding	1983			1984		
	Single-detached	Other	Total	Single-detached	Other	Total
Public funds under federal legislation						
Under National Housing Act						
Social housing <sup>1</sup>	430	486	916	701	1,203	1,904
Market housing <sup>2</sup>	61	—	61	30	—	30
Other						
Loans <sup>3</sup>	318	—	318	90	—	90
Direct government housing	2,937	—	2,937	2,284	—	2,284
Sub-total, public funds under federal legislation	3,746	486	4,232	3,105	1,203	4,308
Institutional funds						
Under National Housing Act						
Social housing <sup>4</sup>	240	12,053	12,293	381	10,182	10,563
Market housing <sup>5</sup>	14,544	15,374	29,918	12,173	10,492	22,665
Conventional loans	30,484	8,694	39,178	22,571	6,614	29,185
Sub-total, institutional funds	45,268	36,121	81,389	35,125	27,288	62,413
Other	53,371	23,653	77,024	45,421	22,758	68,179
Total, all funding	102,385	60,260	162,645	83,651	51,249	134,900
	1985			1986 <sup>p</sup>		
	Single-detached	Other	Total	Single-detached	Other	Total
Public funds under federal legislation						
Under National Housing Act						
Social housing <sup>1</sup>	327	363	690	453	480	933
Market housing <sup>2</sup>	47	2	49	31	15	46
Other						
Loans <sup>3</sup>	160	—	160	238	—	238
Direct government housing	1,943	—	1,943	1,943	—	1,943
Sub-total, public funds under federal legislation	2,477	365	2,842	2,665	495	3,160
Institutional funds						
Under National Housing Act						
Social housing <sup>4</sup>	417	14,072	14,489	337	6,359	6,696
Market housing <sup>5</sup>	8,169	7,878	16,047	6,742	2,340	9,082
Conventional loans	32,061	9,918	41,979	34,076	15,144	49,220
Sub-total, institutional funds	40,647	31,868	72,515	41,155	23,843	64,998
Other	55,500	34,969	90,469	76,188	55,439	131,627
Total, all funding	98,624	67,202	165,826	120,008	79,777	199,785

<sup>1</sup> Includes activities under the following Sections of the National Housing Act: Rural and Native Housing (Section 55), Federal-Provincial Rental and Sales Housing Projects (Section 40).

<sup>2</sup> Includes activities under the National Housing Act (Section 58), Assisted Rental Programme (Section 58) and CMHC Direct (Sections 58 and 59)

<sup>3</sup> Includes government loans under the Veteran's Land Act, the Farm Credit Act and loans for Urban Military Housing.

<sup>4</sup> Includes Non-Profit (Section 6).

<sup>5</sup> Includes Payment Reduction Loan (Section 6), Graduated Payment Mortgage (Section 6) and Approved Lender (Section 6).



## 7.2 Dwelling starts and completions, by type, 1983-86 (dwelling units)

Type	Centres of 10,000 population and over <sup>1</sup>				Canada			
	1983	1984	1985	1986	1983	1984	1985	1986
Starts								
Single-detached	77,579	64,686	78,398	97,341	102,385	83,651	98,624	120,008
Semi-detached	6,230	4,745	5,263	7,060	6,615	5,592	6,338	8,272
Row	9,217	7,698	8,204	9,880	9,521	8,315	9,288	10,485
Apartment and other	41,181	33,745	47,543	56,582	44,124	37,342	51,576	61,020
Total	134,207	110,874	139,408	170,863	162,645	134,900	165,826	199,785
Completions								
Single-detached	72,979	68,036	69,267	89,020	95,320	88,875	84,894	110,902
Semi-detached	6,855	5,319	5,085	6,381	7,129	5,962	6,082	7,746
Row	9,407	9,304	6,807	8,514	9,747	9,997	7,672	8,966
Apartment and other	46,607	44,644	36,591	52,157	50,812	48,178	40,458	56,991
Total	135,848	127,303	117,750	156,072	163,008	153,012	139,106	184,605

<sup>1</sup> Data for 1983-86 are on 1981 Census definitions.

## 7.3 New housing price indexes for metropolitan areas (1981 = 100)

Metropolitan area	1982	1983	1984	1985
St. John's (Nfld.)	99.4	99.6	103.0	105.2
Halifax	..	..	..	121.9
Saint John-Moncton	98.7	102.1	112.8	122.3
Quebec	105.9	112.9	118.5	124.9
Montreal	107.5	112.0	118.9	123.1
Ottawa-Hull	108.3	117.1	126.9	126.5
Toronto	101.4	97.1	97.7	100.4
Hamilton	106.2	111.0	116.7	123.0
St. Catharines-Niagara	100.7	105.8	111.8	124.6
London	102.0	102.9	107.8	111.9
Kitchener	103.7	109.2	113.2	123.3
Windsor	94.8	92.9	98.4	103.4
Winnipeg	106.6	109.1	113.3	119.2
Regina	104.6	107.0	108.5	109.0
Saskatoon	100.3	99.3	99.0	101.2
Calgary	101.2	88.3	81.7	83.7
Edmonton	98.1	90.5	85.0	79.8
Vancouver	79.0	75.9	76.1	73.2
Victoria	87.9	84.3	79.1	74.2
Canada	97.9	94.7	95.1	96.2

## 7.4 Occupied private dwellings, by type, province and Census Metropolitan Area, 1986

Province and Census Metropolitan Area	Total occupied private dwellings <sup>1</sup>	Single detached	Multiple-unit types <sup>2</sup>	Single detached %	Multiple-unit types <sup>2</sup> %
Province					
Newfoundland	159,080	122,895	34,430	77.3	21.6
Prince Edward Island	40,690	30,105	9,015	74.0	22.2
Nova Scotia	295,780	207,490	79,875	70.1	27.0
New Brunswick	231,680	169,350	55,275	73.1	23.9
Quebec	2,357,100	1,032,605	1,307,570	43.8	55.5
Ontario	3,221,725	1,850,570	1,359,635	57.4	42.2
Manitoba	382,345	261,980	116,105	68.5	30.4
Saskatchewan	358,270	275,455	74,925	76.9	20.9
Alberta	836,130	528,175	281,695	63.2	33.7
British Columbia	1,087,115	679,005	378,560	62.5	34.8
Yukon	7,975	5,635	2,055	70.7	25.8
Northwest Territories	13,770	8,530	4,305	61.9	31.3
Canada	8,991,660	5,171,795	3,703,445	57.5	41.2

## 7.4 Occupied private dwellings, by type, province and Census Metropolitan Area, 1986 (concluded)

Province and Census Metropolitan Area	Total occupied private dwellings <sup>1</sup>	Single detached	Multiple-unit types <sup>2</sup>	Single detached %	Multiple-unit types <sup>2</sup> %
Metropolitan area					
Calgary, Alta.	248,590	139,080	107,900	55.9	43.4
Chicoutimi, Que.	51,305	25,420	25,230	49.5	49.2
Edmonton, Alta.	283,365	163,490	115,970	57.7	40.9
Halifax, NS	103,830	53,615	48,380	51.6	46.6
Hamilton, Ont.	201,330	120,305	80,955	59.8	40.2
Kitchener, Ont.	110,155	61,030	49,065	55.4	44.5
London, Ont.	129,385	72,885	56,215	56.3	43.4
Montreal, Que.	1,115,380	312,050	801,575	28.0	71.9
Oshawa, Ont.	68,010	42,045	25,845	61.8	38.0
Ottawa-Hull, Ont., Que.	302,335	131,055	169,755	43.3	56.1
Quebec, Que.	218,425	90,540	126,295	41.5	57.8
Regina, Sask.	67,680	47,100	20,090	69.6	29.7
Saint John, NB	41,720	22,235	18,140	53.3	43.5
St. Catharines, Ont.	124,575	89,250	35,125	71.6	28.2
St. John's, Nfld.	47,905	26,770	20,700	55.9	43.2
Saskatoon, Sask.	73,960	46,525	26,585	62.9	35.9
Sherbrooke, Que.	48,530	20,205	28,105	41.6	57.9
Sudbury, Ont.	51,600	31,440	19,730	60.9	38.2
Thunder Bay, Ont.	43,665	30,340	13,170	69.5	30.2
Toronto, Ont.	1,199,800	517,705	681,690	43.1	56.8
Trois-Rivières, Que.	47,475	21,695	25,600	45.7	53.9
Vancouver, BC	532,220	283,540	245,700	53.3	46.2
Victoria, BC	105,445	59,705	44,785	56.6	42.5
Windsor, Ont.	91,615	62,700	28,510	68.4	31.1
Winnipeg, Man.	236,325	141,335	94,650	59.8	40.0

<sup>1</sup> Includes mobile homes and other movable dwellings.

<sup>2</sup> Includes double and row houses, duplexes and dwellings attached to non-residential structures.

## 7.5 Annual estimates of household facilities and equipment, May 1986

Item	Estimated households 1986 '000	Percentage of households						
		1986 <sup>1</sup>	1985 <sup>1</sup>	1984 <sup>1</sup>	1983	1982 <sup>2</sup>	1981 <sup>2</sup>	1980 <sup>2</sup>
Total households	9,331	...	...	...	...	...	...	...
Principal heating fuel								
Oil or other liquid fuel	1,871	20.1	21.9	25.3	28.3	30.7	34.3	37.3
Piped gas	4,198	45.0	44.3	43.5	43.5	42.7	41.5	39.5
Bottled gas	75	0.8	0.7	0.7	0.7	0.6	0.7	0.7
Electricity	2,637	28.3	28.2	25.1	23.3	21.5	20.6	19.5
Wood	530	5.7	4.7	5.3	4.0	4.3	2.7	2.8
Other <sup>3</sup>	20	0.2	0.3	0.2	0.2	0.2	0.3	0.3
Cooking fuel								
Electricity	8,642	92.6	92.3	91.7	91.1	90.8	90.7	89.4
Piped gas	491	5.3	5.2	5.7	6.2	6.3	6.0	6.9
Bottled gas	92	1.0	1.0	1.2	1.1	1.1	1.2	1.5
Wood or coal	50	0.5	0.7	0.9	0.8	0.9	0.9	1.1
Kerosene, oil or other	38	0.4	0.6	0.5	0.6	0.7	0.9	0.9
No cooking fuel	19	0.2	0.1	0.1	...	—	...	0.1
Fuel used for piped hot water supply								
Electricity	4,696	50.3	52.1	51.2	50.4	51.0	50.4	51.8
Gas	3,932	42.1	40.4	40.2	40.1	39.8	39.3	36.6
Oil	607	6.5	6.3	7.4	8.1	8.9	9.8	9.9
Coal, wood or other	29	0.3	0.3	0.3	0.4	0.3	0.3	0.3
No hot water	67	0.7	1.0	0.8	1.0	1.1	1.5	1.3
Running water	9,307	99.7	99.0	99.2	99.0	99.5	99.5	99.4
Bath or shower (exclusive use)								
One	7,362	78.9	79.2	80.4	80.6	83.3	80.6	81.3
Two or more	1,878	20.1	19.7	18.6	18.2	15.5	17.8	17.1
Flush toilet	9,258	99.2	99.2	99.2	99.0	99.0	98.9	98.8
Refrigerators and home freezers								
Electric refrigerators	9,262	99.3	99.2	99.6	99.6	99.7	99.4	99.6
Home freezers	5,384	57.7	57.0	56.1	54.6	54.3	52.8	51.0
Microwave ovens	3,134	33.6	22.9	16.1	12.5	10.2	7.9	4
Washing machines								
Automatic	6,570	70.4	69.9	68.4	66.8	66.7	64.9	64.5
Other electric	563	6.0	7.5	8.7	9.5	10.6	11.8	12.8
Clothes dryers	6,398	68.6	68.6	67.3	65.8	66.3	63.9	63.2

## 7.5 Annual estimates of household facilities and equipment, May 1986 (concluded)

Item	Estimated households 1986 '000	Percentage of households						
		1986 <sup>1</sup>	1985 <sup>1</sup>	1984 <sup>1</sup>	1983	1982 <sup>2</sup>	1981 <sup>2</sup>	1980 <sup>2</sup>
Telephones	9,156	98.1	98.2	98.5	97.7	97.9	97.6	97.6
One	4,091	43.8	48.0	51.5	55.5	59.1	60.2	64.0
Two or more	5,065	54.3	50.2	47.1	42.2	38.8	37.4	33.6
Radios								
All types, except car	9,244	99.1	98.7	98.9	98.8	98.8	98.4	98.7
FM receivers	8,895	95.3	93.8	93.4	91.1	90.4	88.7	87.6
TV sets								
All types								
One	4,829	51.8	52.1	53.4	54.3	59.2	58.5	59.4
Two or more	4,375	46.9	46.2	44.6	43.6	39.0	39.3	38.3
Colour	8,699	93.2	91.4	88.4	87.3	85.0	82.9	81.1
Black and white	3,421	36.7	38.7	42.6	43.6	43.0	45.3	47.0
Cable television	6,052	64.9	62.4	60.1	59.5	59.6	56.5	54.8
Video cassette recorders (VCRs)	3,273	35.1	23.4	12.5	6.4	4	4	4
Record players	7,115	76.3	4	4	79.1	79.9	79.9	79.8
Automobiles								
One	4,967	53.2	54.8	55.1	51.2	52.4	53.6	53.7
Two or more	2,251	24.1	22.4	22.1	27.9	27.7	26.3	26.1
Miscellaneous								
Window-type air conditioners	933	10.0	10.4	9.1	10.0	9.9	11.1	11.4
Central-unit air conditioners	755	8.1	7.5	7.5	7.0	6.1	5.7	5.3
Automatic dishwashers	3,540	37.9	37.0	35.2	34.1	33.3	31.3	28.6

<sup>1</sup> Includes mobile homes.<sup>2</sup> Revised estimates.<sup>3</sup> Includes coal or coke.<sup>4</sup> Data not collected.

## 7.6 Construction building materials price indexes (1981 = 100)

Year	Residential					Non-residential				
	Structural	Architectural	Mechanical	Electrical	Total	Structural	Architectural	Mechanical	Electrical	Total
1982	104.2	102.9	110.8	106.3	104.2	109.0	104.0	108.9	106.8	106.3
1983	116.4	108.5	118.7	107.1	111.2	111.8	109.1	117.1	108.7	110.8
1984	115.5	113.8	119.9	116.5	114.9	112.4	115.6	117.5	115.5	115.1
1985	118.4	119.9	122.1	116.4	119.6	115.7	120.6	123.0	116.7	119.3

## 7.7 Union wage rate indexes for major cities, averages of 16 construction trades (1981 = 100)

City and city weights <sup>1</sup>	1978		1979		1980		1981	
	Basic rate	Including supplement	Basic rate	Including supplement	Basic rate	Including supplement	Basic rate	Including supplement
St. John's (1.17)	78.7	76.7	82.4	80.8	87.7	86.7	100.0	100.0
Halifax (1.83)	75.5	74.2	84.2	83.1	90.1	89.1	100.0	100.0
Saint John (1.07)	76.6	74.2	83.4	81.7	89.2	88.3	100.0	100.0
Quebec (3.28)	79.6	79.9	83.8	83.9	92.0	92.1	100.0	100.0
Chicoutimi (0.87)	79.6	79.7	83.9	83.9	92.1	92.1	100.0	100.0
Montreal (13.81)	79.7	80.0	83.9	84.0	92.0	92.2	100.0	100.0
Ottawa (2.80)	80.9	80.0	86.5	86.0	92.4	92.1	100.0	100.0
Toronto (21.72)	81.7	81.2	87.1	87.0	92.5	92.6	100.0	100.0
Hamilton (3.53)	81.7	81.7	86.7	87.0	92.3	92.5	100.0	100.0
St. Catharines (1.93)	83.8	81.3	88.7	86.6	93.1	92.3	100.0	100.0
Kitchener (1.91)	81.3	79.3	86.7	85.3	92.2	91.6	100.0	100.0
London (2.03)	81.0	80.0	86.4	85.8	92.2	92.0	100.0	100.0
Windsor (1.62)	81.5	81.1	86.5	86.6	92.1	92.4	100.0	100.0
Sudbury (1.06)	81.4	79.9	86.8	86.1	92.2	92.3	100.0	100.0
Thunder Bay (0.96)	81.2	81.0	86.4	86.4	92.0	92.1	100.0	100.0
Winnipeg (3.66)	78.2	77.7	84.0	83.5	91.1	91.0	100.0	100.0
Regina (1.64)	76.6	75.8	81.8	81.1	89.4	89.2	100.0	100.0
Saskatoon (1.68)	76.6	75.9	81.6	81.0	89.4	89.2	100.0	100.0
Calgary (9.93)	78.7	78.2	83.6	83.0	90.9	90.7	100.0	100.0
Edmonton (9.65)	79.6	79.1	84.2	83.9	91.2	91.1	100.0	100.0
Vancouver (11.60)	78.6	78.4	83.2	83.1	90.4	91.1	100.0	100.0
Victoria (2.25)	79.4	78.7	83.8	83.3	91.0	91.3	100.0	100.0
Total	80.1	79.6	85.0	84.7	91.6	91.6	100.0	100.0

### 7.7 Union wage rate indexes for major cities, averages of 16 construction trades (1981 = 100) (concluded)

City and city weights <sup>1</sup>	1982		1983		1984		1985	
	Basic rate	Including supplement	Basic rate	Including supplement	Basic rate	Including supplement	Basic rate	Including supplement
St. John's (1.17)	107.7	108.5	117.7	121.7	120.5	124.6	117.3	121.3
Halifax (1.83)	109.4	109.7	117.4	118.0	130.9	132.2	145.2	147.0
Saint John (1.07)	109.7	109.7	123.7	123.2	130.8	130.4	132.7	133.0
Quebec (3.28)	109.1	109.3	121.1	121.3	124.9	125.7	128.6	129.7
Chicoutimi (0.87)	108.9	108.9	120.9	120.8	124.7	125.2	128.4	129.2
Montreal (13.81)	109.0	109.1	120.9	121.1	124.7	125.5	128.4	129.4
Ottawa (2.80)	108.6	108.7	123.8	124.0	128.0	128.7	131.7	133.0
Toronto (21.72)	107.7	108.0	121.2	121.6	124.4	126.0	127.7	129.9
Hamilton (3.53)	107.6	108.2	121.1	122.2	124.2	126.5	127.4	130.3
St. Catharines (1.93)	107.4	108.7	121.1	123.2	125.0	128.0	128.7	132.0
Kitchener (1.91)	108.7	109.0	124.4	124.9	128.8	130.0	133.0	134.4
London (2.03)	109.0	109.0	125.1	125.1	129.6	130.1	133.3	134.3
Windsor (1.62)	107.3	108.3	120.8	123.0	124.8	127.5	128.7	131.5
Sudbury (1.06)	108.2	109.1	122.4	124.0	126.4	128.7	130.0	132.9
Thunder Bay (0.96)	107.9	108.8	122.0	123.6	125.8	128.1	129.3	132.1
Winnipeg (3.66)	111.2	110.8	125.7	125.0	130.5	129.1	132.4	130.6
Regina (1.64)	108.0	108.1	124.5	124.8	132.5	132.7	131.7	132.0
Saskatoon (1.68)	108.1	108.2	124.6	124.8	132.5	132.7	131.9	132.2
Calgary (9.93)	110.9	110.9	125.3	125.9	129.0	129.8	129.4	130.7
Edmonton (9.65)	111.3	111.1	125.5	125.9	130.0	130.5	130.2	130.7
Vancouver (11.60)	110.8	110.5	122.8	123.2	125.8	126.5	127.6	130.2
Victoria (2.25)	110.6	110.4	122.6	123.1	125.6	126.4	127.8	130.2
Total	109.3	109.4	122.6	123.1	126.6	127.6	129.2	130.7

<sup>1</sup> The weights used are based on estimates of gross earnings of each trade in each metropolitan area, derived from 1981 Census data.

### 7.8 Output price indexes of non-residential construction (1981 = 100)

City	Commercial building (office, warehouse, shopping centre)				Industrial building (factory)			
	1982	1983	1984	1985	1982	1983	1984	1985
Halifax	106.9	109.6	111.3	113.0	107.0	110.4	114.9	121.0
Montreal	109.1	111.1	113.6	118.0	108.1	108.4	111.4	116.9
Ottawa	106.3	112.7	116.5	120.3	107.2	112.3	117.7	122.6
Toronto	109.2	112.6	115.8	121.5	108.9	112.2	116.0	123.8
Calgary	105.7	98.5	93.1	91.0	104.6	97.8	92.3	90.4
Edmonton	107.5	102.0	92.2	90.6	106.0	102.2	93.6	91.5
Vancouver	108.1	107.4	102.0	102.3	108.5	109.6	105.4	105.8
Seven-city composite	107.6	105.7	103.3	105.5	107.6	107.4	107.4	111.7
	Institutional building (school)				Total			
	1982	1983	1984	1985	1982	1983	1984	1985
Halifax	107.2	110.2	112.8	116.7	107.0	109.9	112.2	115.0
Montreal	108.7	111.0	114.7	118.6	108.8	110.5	113.3	117.8
Ottawa	107.2	112.4	116.0	120.6	106.7	112.7	116.6	120.7
Toronto	110.5	114.6	118.5	123.0	109.2	112.7	116.2	122.0
Calgary	105.9	99.7	94.3	92.6	105.7	98.5	93.2	91.3
Edmonton	106.9	104.1	95.7	94.4	107.1	102.5	93.3	91.7
Vancouver	108.8	110.0	107.4	108.1	108.3	108.4	104.0	104.4
Seven-city composite	107.9	107.8	105.9	107.6	107.7	106.3	104.3	106.7



**7.9 Highway construction price indexes (1971 = 100)**

Province and item	Decade	0	1	2	3	4	5	6	7	8	9
Newfoundland	1950-59	...	...	...	...	...	...	77.3	65.0	74.0	67.5
	1960-69	70.8	56.8	61.9	57.4	61.5	67.8	73.6	65.4	68.6	66.1
	1970-79	82.6	100.0	101.1	109.6	129.0	128.0	111.3	127.4	141.6	149.6
	1980-89	149.4	205.1	222.8	233.0	267.8	265.4	..	..	..	..
Nova Scotia	1950-59	...	...	...	...	...	...	77.6	70.5	69.9	74.2
	1960-69	79.8	67.4	66.2	64.7	65.0	78.8	78.3	82.7	80.8	83.0
	1970-79	90.4	100.0	107.2	118.8	164.1	185.0	176.2	195.4	209.2	224.9
	1980-89	248.7	290.2	329.5	391.1	434.9	425.1	..	..	..	..
New Brunswick	1950-59	...	...	...	...	...	...	87.0	84.6	89.9	89.3
	1960-69	84.3	87.1	86.5	89.0	90.3	89.9	90.2	89.7	88.7	89.0
	1970-79	105.7	100.0	123.9	139.3	191.8	188.6	209.4	226.8	240.2	250.7
	1980-89	296.4	349.2	386.0	424.2	455.1	474.5	..	..	..	..
Quebec	1960-69	...	...	...	...	79.6	76.9	82.6	80.8	80.5	85.4
	1970-79	87.2	100.0	106.6	120.5	154.0	180.7	190.5	200.6	215.3	235.2
	1980-89	277.1	337.0	362.2	361.3	420.7	416.8	..	..	..	..
Ontario	1950-59	...	...	...	...	...	...	81.6	71.4	66.4	69.2
	1960-69	65.2	60.8	67.0	76.9	75.2	87.5	95.7	95.0	92.1	93.6
	1970-79	96.8	100.0	106.3	114.5	149.5	164.2	172.4	186.9	202.4	221.2
	1980-89	248.9	302.5	318.2	342.4	360.9	374.1	..	..	..	..
Manitoba	1950-59	...	...	...	...	...	...	83.3	93.4	69.8	68.7
	1960-69	72.9	62.6	67.6	75.3	77.5	83.5	95.7	96.3	88.2	90.5
	1970-79	100.9	100.0	111.3	126.3	166.8	172.5	197.6	204.7	226.0	250.0
	1980-89	277.2	295.7	331.4	325.6	351.5	401.8	..	..	..	..
Saskatchewan	1950-59	...	...	...	...	...	...	103.7	106.5	82.6	75.5
	1960-69	71.6	68.0	66.9	69.8	79.4	98.2	114.3	93.5	84.9	89.8
	1970-79	98.5	100.0	104.4	129.6	175.8	210.4	206.6	231.9	268.9	283.4
	1980-89	290.6	323.9	335.2	354.6	379.1	400.3	..	..	..	..
Alberta	1970-79	...	100.0	99.5	128.6	184.7	209.7	200.5	222.9	257.0	285.8
	1980-89	320.4	334.0	333.0	331.1	343.7	368.5	..	..	..	..
British Columbia	1950-59	...	...	...	...	...	...	102.4	95.4	80.3	82.1
	1960-69	81.8	71.9	68.5	69.7	76.3	91.9	93.3	85.9	91.1	103.0
	1970-79	96.7	100.0	95.7	101.6	170.2	183.2	213.2	215.3	214.2	223.6
	1980-89	257.4	307.3	309.2	365.4	303.6	288.1	..	..	..	..
Canada	1950-59	...	...	...	...	...	...	87.1	80.9	73.0	73.2
	1960-69	72.1	65.0	67.6	72.2	76.2	83.0	89.4	86.0	84.8	88.7
	1970-79	92.7	100.0	105.1	118.3	158.7	177.5	185.1	198.2	214.4	232.2
	1980-89	262.8	311.6	329.3	346.3	374.0	379.8	..	..	..	..
Grading	1950-59	...	...	...	...	...	...	85.5	74.8	69.8	68.7
	1960-69	68.4	60.4	65.7	72.6	75.7	81.1	88.6	84.8	84.1	87.7
	1970-79	91.4	100.0	107.3	120.1	162.2	181.7	193.2	204.7	221.9	233.4
	1980-89	255.3	300.0	307.4	324.1	355.8	362.6	..	..	..	..
Granular base courses	1950-59	...	...	...	...	...	...	88.6	84.9	72.7	74.8
	1960-69	71.8	68.2	66.0	68.9	76.5	85.0	91.5	87.7	84.5	90.1
	1970-79	93.6	100.0	102.5	116.4	154.9	173.0	177.2	189.7	201.7	212.6
	1980-89	246.7	288.7	312.6	316.8	320.5	335.3	..	..	..	..
Paving	1950-59	...	...	...	...	...	...	92.7	92.7	83.5	82.3
	1960-69	83.7	72.5	76.0	77.0	79.2	83.7	88.7	88.0	87.1	88.3
	1970-79	94.7	100.0	104.2	117.0	156.6	174.7	179.4	195.4	214.0	247.6
	1980-89	288.6	350.0	378.5	407.3	499.7	450.1	..	..	..	..
Total contract work	1970-79	...	100.0	105.2	118.3	156.4	175.4	182.1	194.5	209.3	219.7
	1980-89	244.8	285.5	308.8	318.6	337.2	341.7	..	..	..	..
Total supplies	1970-79	...	100.0	104.1	117.9	187.2	202.6	222.0	242.9	277.1	384.6
	1980-89	480.3	628.2	578.7	682.8	820.7	844.3	..	..	..	..

### 7.10 Value of construction work purchased, by new and repair, current and constant dollars, 1977-86<sup>1</sup>

Year	New		Repair		Total		Total construction as percentage of gross national expenditure	
	Current dollars (\$'000,000)	Constant 1971 dollars (\$'000,000)	Current dollars (\$'000,000)	Constant 1971 dollars (\$'000,000)	Current dollars (\$'000,000)	Constant 1971 dollars (\$'000,000)	Current dollars %	Constant 1971 dollars %
1977	30,130	16,482	5,673	3,120	35,803	19,602	17.0	16.1
1978	31,910	16,272	6,280	3,216	38,190	19,488	16.4	15.4
1979	35,847	16,941	7,176	3,254	43,023	20,195	16.3	15.5
1980	40,153	17,330	8,174	3,376	48,327	20,706	16.2	15.7
1981	47,859	18,521	9,025	3,344	56,884	21,865	16.7	16.1
1982	46,517	16,854	9,548	3,269	56,065	20,123	15.6	15.5
1983	45,678	16,227	10,270	3,386	55,948	19,613	14.4	14.6
1984	45,770	15,970	10,804	3,555	56,574	19,525	13.4	13.8
1985	50,196	17,149	11,253	3,602	61,449	20,751	13.5	14.1
1986	52,043	...	11,779	...	63,822	...	...	...

<sup>1</sup> Actual expenditures, 1977-84; preliminary actual, 1985; intentions, 1986.

### 7.11 Value of construction work purchased, by contractors and others, 1982-86<sup>1</sup> (million dollars)

Item	1982	1983	1984	1985	1986
Contract construction					
New					
Repair	32,107	31,304	31,985	35,546	37,517
	4,762	4,894	5,227	5,439	5,735
Sub-total, contract construction	36,869	36,198	37,212	40,985	43,252
Other construction <sup>2</sup>					
New					
Repair	14,410	14,374	13,785	14,650	14,526
	4,786	5,376	5,577	5,814	6,044
Sub-total, other construction <sup>2</sup>	19,196	19,750	19,362	20,464	20,570
Total	56,065	55,948	56,574	61,449	63,822
New					
Repair	46,517	45,678	45,770	50,196	52,043
	9,548	10,270	10,804	11,253	11,779

<sup>1</sup> Actual expenditures, 1982-84; preliminary actual, 1985; intentions, 1986.

<sup>2</sup> Work done by the labour forces of utilities, government departments and other employers not primarily engaged in the construction industry.

### 7.12 Labour content, cost of materials and value of work, purchased in construction, by province and by employer, 1983-86<sup>1</sup>

Province and employer	1983				1984			
	Labour content		Cost of materials used \$'000,000	Value of work performed \$'000,000	Labour content		Cost of materials used \$'000,000	Value of work performed \$'000,000
	No.	Value \$'000,000			No.	Value \$'000,000		
Newfoundland	16,318	379	605	1,467	15,904	382	666	1,616
Prince Edward Island	3,650	63	75	182	3,569	65	80	191
Nova Scotia	28,145	586	875	2,106	26,068	608	824	2,105
New Brunswick	19,761	403	464	1,154	20,317	430	485	1,200
Quebec	138,553	3,643	3,896	10,993	149,030	4,043	4,570	11,780
Ontario	222,518	5,483	5,271	14,971	244,796	6,201	5,939	16,770
Manitoba	25,312	571	609	1,645	27,304	635	715	1,873
Saskatchewan	37,460	906	1,045	2,717	33,980	803	977	2,612
Alberta	118,125	3,496	4,601	11,082	97,562	2,810	4,006	9,531
British Columbia	99,143	3,109	3,908	9,631	100,594	2,965	3,355	8,898
Canada	708,985	18,639	21,347	55,948	719,124	18,942	21,617	56,574
Employer								
Contractors	510,697	13,203	13,235	36,198	511,130	13,270	13,667	37,212
Utilities	67,567	1,981	1,691	5,860	78,243	2,253	1,738	5,570
Governments	37,409	1,065	991	2,945	35,884	1,016	957	2,818
Miscellaneous	93,312	2,389	5,430	10,944	93,867	2,403	5,255	10,974

### 7.12 Labour content, cost of materials and value of work, purchased in construction, by province and by employer, 1983-86<sup>1</sup> (concluded)

Province and employer	1985				1986			
	Labour content		Cost of materials used \$'000,000	Value of work performed \$'000,000	Labour content		Cost of materials used \$'000,000	Value of work performed \$'000,000
	No.	Value \$'000,000			No.	Value \$'000,000		
Newfoundland	16,172	389	662	1,606	15,935	389	576	1,426
Prince Edward Island	3,985	73	93	215	4,158	78	99	230
Nova Scotia	28,772	681	905	2,316	26,317	637	746	1,966
New Brunswick	20,529	453	516	1,279	19,687	448	515	1,263
Quebec	154,427	4,338	4,917	12,586	155,587	4,492	5,116	13,068
Ontario	261,218	6,969	6,796	18,952	280,181	7,658	7,584	20,978
Manitoba	30,017	716	808	2,114	33,071	816	904	2,390
Saskatchewan	36,686	870	1,097	2,914	35,649	867	1,066	2,848
Alberta	104,262	3,054	4,541	10,710	111,371	3,352	5,028	11,824
British Columbia	97,947	2,911	3,299	8,757	86,509	2,621	2,951	7,829
Canada	754,015	20,453	23,634	61,449	768,465	21,358	24,585	63,822
Employer								
Contractors	548,523	14,600	15,170	40,986	561,500	15,322	16,149	43,252
Utilities		2,219	1,694	5,435		2,268	1,744	5,536
Governments	35,922	1,073	1,031	3,059	34,946	1,075	1,026	3,007
Miscellaneous	97,183	2,561	5,740	11,970	99,650	2,693	5,666	12,027

<sup>1</sup> Actual expenditures, 1983-84; preliminary actual, 1985; intentions, 1986.

### 7.13 Value of building permits issued, by province, 1982-85 (million dollars)

Year and province or territory	Residential construction			Non-residential construction			Total
	New	Improvements	Total	Industrial	Commercial	Institutional and governmental	
1982							
Newfoundland	35.2	7.2	42.4	6.3	15.7	37.9	102.3
Prince Edward Island	12.7	5.3	18.0	3.9	11.0	16.4	49.3
Nova Scotia	139.5	41.9	181.4	18.5	58.7	65.3	323.9
New Brunswick	43.6	21.4	65.0	38.0	33.1	44.3	180.4
Quebec	893.9	267.0	1,160.9	173.7	547.8	245.6	2,128.0
Ontario	1,746.4	338.5	2,084.9	468.4	1,170.6	487.2	4,211.1
Manitoba	109.3	28.1	137.4	28.2	57.1	43.4	266.1
Saskatchewan	213.4	25.0	238.4	17.4	98.5	76.2	430.5
Alberta	970.3	89.0	1,059.3	124.8	1,005.3	721.6	2,911.0
British Columbia	976.5	158.4	1,134.9	216.3	483.3	326.6	2,161.1
Yukon	3.7	1.1	4.8	0.8	3.4	9.0	18.0
Northwest Territories	5.0	0.4	5.4	0.1	0.7	0.8	7.0
Total	5,149.5	983.4	6,132.9	1,096.3	3,485.2	2,074.4	12,788.8
1983							
Newfoundland	79.6	15.7	95.3	2.8	18.0	28.8	144.9
Prince Edward Island	26.6	5.8	32.4	5.4	24.6	12.0	74.4
Nova Scotia	262.7	57.9	320.6	17.4	74.8	56.5	469.3
New Brunswick	110.8	34.1	144.9	10.9	49.3	72.2	277.3
Quebec	1,711.4	384.9	2,096.3	238.7	468.4	265.5	3,068.9
Ontario	2,830.0	420.5	3,250.5	435.3	1,026.8	637.3	5,349.9
Manitoba	235.7	42.1	277.8	20.8	63.1	70.8	432.5
Saskatchewan	326.1	30.8	356.9	31.4	105.1	120.1	613.5
Alberta	718.4	90.8	809.2	82.3	470.6	508.9	1,871.0
British Columbia	1,284.7	178.1	1,462.8	93.7	452.0	229.3	2,237.8
Yukon	3.3	2.2	5.5	0.4	3.7	5.6	15.2
Northwest Territories	6.1	1.0	7.1	0.7	4.4	4.6	16.8
Total	7,595.4	1,263.9	8,859.3	939.8	2,760.8	2,011.6	14,571.5

**7.13 Value of building permits issued, by province, 1982-85 (million dollars) (concluded)**

Year and province or territory	Residential construction			Non-residential construction			Total
	New	Improve-ments	Total	Indus-trial	Commer-cial	Institutional and governmental	
1984							
Newfoundland	77.0	13.2	90.2	6.9	26.1	30.4	153.6
Prince Edward Island	31.0	6.1	37.1	16.6	12.9	11.2	77.8
Nova Scotia	282.4	51.8	334.2	21.5	146.9	58.9	561.5
New Brunswick	121.9	36.1	158.0	15.3	76.1	43.8	293.2
Quebec	1,813.4	434.3	2,247.7	359.9	615.8	387.5	3,610.9
Ontario	2,915.8	444.8	3,360.6	634.6	1,387.8	671.3	6,274.3
Manitoba	282.9	37.5	320.4	19.1	126.2	62.8	528.5
Saskatchewan	242.6	29.8	272.4	23.0	132.3	141.9	569.6
Alberta	428.9	72.8	501.7	98.3	409.8	376.5	1,386.3
British Columbia	1,021.0	155.9	1,176.9	144.6	566.4	115.7	2,003.6
Yukon	4.3	1.4	5.7	6.9	6.4	4.8	23.8
Northwest Territories	7.1	1.1	8.2	0.6	8.5	1.2	18.5
Total	7,228.3	1,284.8	8,513.1	1,367.3	3,715.2	1,906.0	15,501.6
1985							
Newfoundland	95.7	20.1	115.8	3.7	44.1	20.0	183.6
Prince Edward Island	36.8	6.9	43.7	5.3	10.6	27.8	87.4
Nova Scotia	374.7	66.8	441.5	22.8	142.6	60.9	667.8
New Brunswick	160.3	43.8	204.1	25.1	59.4	84.1	372.7
Quebec	1,952.5	453.5	2,406.0	678.4	988.4	401.9	4,474.7
Ontario	4,381.2	505.2	4,886.4	880.6	2,075.0	550.6	8,392.6
Manitoba	376.1	48.1	424.2	49.0	122.7	100.5	696.4
Saskatchewan	253.0	31.4	284.4	24.4	136.7	102.8	548.3
Alberta	591.8	77.3	669.1	52.4	466.7	609.9	1,798.1
British Columbia	1,224.7	153.5	1,378.2	141.5	571.1	99.6	2,190.4
Yukon	6.5	1.9	8.4	0.3	8.5	13.8	31.0
Northwest Territories	18.7	2.5	21.2	1.9	14.0	43.7	80.8
Total	9,472.0	1,411.0	10,883.0	1,885.4	4,639.8	2,115.6	19,523.8

**7.14 Value of building permits issued in the most active municipalities, by province, 1982-85 (million dollars)**

Province and municipality	1982	1983	1984	1985	Province and municipality	1982	1983	1984	1985
Newfoundland					Ontario (cont'd)				
St. John's	62.7	60.0	54.1	79.8	Mississauga	221.4	379.6	429.2	647.5
Prince Edward Island					Nepean	54.2	107.4	112.7	143.6
Charlottetown	21.3	18.4	12.9	24.2	Newmarket	13.3	29.5	25.2	66.4
Nova Scotia					Oakville	36.2	71.2	94.4	154.3
Dartmouth	36.6	66.7	73.2	97.1	Oshawa	41.7	37.8	99.9	112.8
Halifax	87.1	105.0	121.2	122.5	Ottawa	247.0	242.4	402.6	389.7
New Brunswick					Pickering	46.5	57.1	65.9	127.8
Fredericton	28.3	24.9	35.3	46.2	Richmond Hill	40.5	79.4	82.4	111.7
Moncton	20.3	30.7	32.0	45.9	St. Catharines	33.5	35.3	32.7	77.3
Saint John	25.3	67.0	56.5	40.8	Scarborough	247.4	499.6	307.5	495.5
Quebec					Toronto	546.9	535.1	514.0	587.8
Gatineau	15.0	54.1	86.6	66.6	Vaughan	123.7	167.6	296.5	509.2
Hull	13.8	48.2	140.6	163.2	York North	298.7	248.0	331.0	398.9
Jonquière	28.6	63.7	36.8	58.9	Waterloo	24.4	44.0	46.9	107.0
Laval	177.1	189.8	199.3	248.0	Whitby	61.5	42.3	48.7	68.1
Longueuil	30.4	58.6	62.5	90.1	Windsor	46.1	74.1	58.1	96.4
Montreal	557.9	533.0	734.5	680.0	Manitoba				
Quebec	73.2	105.2	128.5	221.0	Winnipeg	203.9	345.0	418.7	518.8
St. Laurent	38.5	35.2	44.7	90.6	Saskatchewan				
Ste-Foy	38.6	58.7	47.1	99.6	Regina	150.4	174.9	155.8	136.5
Sherbrooke	16.4	40.0	51.2	60.5	Saskatoon	144.7	199.6	201.8	185.6
Ontario					Alberta				
Ajax	52.2	54.3	65.9	69.0	Calgary	1,051.5	410.6	398.4	474.3
Brampton	117.9	160.2	213.0	288.3	Edmonton	778.2	582.3	319.4	476.0
Burlington	28.8	32.1	66.5	100.7	Lethbridge	66.4	54.7	43.0	103.4
Cumberland	37.9	83.5	65.0	93.1	Medicine Hat	47.3	38.0	29.8	65.4
Etobicoke	109.1	121.6	204.5	196.1	British Columbia				
Gloucester	41.5	63.8	180.9	149.0	Burnaby	149.1	126.5	148.7	129.9
Hamilton	92.0	125.6	131.1	199.3	North Vancouver	49.7	25.0	21.3	66.1
Kitchener	40.2	58.7	63.7	100.3	Richmond	114.9	97.1	70.8	112.8
London	157.7	131.5	131.9	198.0	Saanich	60.7	67.9	55.6	76.3
Markham	110.3	225.5	241.0	309.5	Surrey	207.2	227.5	175.6	216.0
					Vancouver	380.1	498.4	577.2	568.3



### 7.15 Estimated value of building permits issued in metropolitan areas (million dollars)

Metropolitan area	1982	1983	1984	1985	Metropolitan area	1982	1983	1984	1985
Calgary	1,051.5	410.6	398.4	474.3	St. Catharines-Niagara	87.2	108.5	111.8	176.4
Chicoutimi-Jonquière	47.5	98.4	80.1	118.6	Saint John	28.3	87.9	78.6	71.4
Edmonton	915.8	688.6	378.8	563.2	St. John's	72.5	96.3	89.8	128.1
Halifax	171.9	261.1	313.9	369.2	Saskatoon	144.7	199.6	201.8	185.6
Hamilton	180.0	252.3	289.3	450.5	Sudbury	37.3	29.8	46.9	48.8
Kitchener	90.9	137.9	153.7	291.9	Thunder Bay	32.8	52.4	38.4	64.4
London	166.5	150.9	146.9	224.2	Toronto	2,118.9	2,729.2	3,052.9	4,177.1
Montreal	1,244.8	1,564.3	1,875.8	2,083.6	Trois-Rivières	39.3	58.1	89.0	104.5
Oshawa	103.2	80.1	148.7	180.9	Vancouver	1,247.8	1,340.0	1,284.5	1,475.0
Ottawa-Hull	488.4	766.5	1,157.5	1,172.9	Victoria	167.0	195.6	176.4	215.1
Quebec	243.7	372.4	378.0	545.4	Windsor	52.6	93.8	83.9	149.4
Regina	150.4	174.9	155.8	136.5	Winnipeg	206.6	349.1	423.7	526.4

### 7.16 Capital expenditures<sup>1</sup> on construction and on machinery and equipment, in current and constant (1971) dollars, 1974-86

Year	Capital expenditures (\$'000,000)						Capital expenditures as percentage of gross national expenditure <sup>2</sup>	
	Construction		Machinery and equipment		Total		Current dollars	Constant 1971 dollars
	Current dollars	Constant 1971 dollars	Current dollars	Constant 1971 dollars	Current dollars	Constant 1971 dollars		
1974	20,771	14,975	12,111	9,952	32,882	24,927	23.2	23.0
1975	24,054	15,469	14,162	10,225	38,216	25,694	24.2	23.6
1976	28,144	16,259	15,492	10,468	43,636	26,727	23.4	22.8
1977	30,130	16,078	16,467	10,409	46,597	26,487	23.1	22.3
1978	31,912	15,821	18,448	10,633	50,360	26,454	22.7	21.6
1979	35,847	16,220	22,508	11,674	58,355	27,894	23.1	22.1
1980	40,157	16,951	26,036	12,104	66,193	29,055	23.6	22.9
1981	47,860	18,232	31,744	13,400	79,604	31,632	24.4	23.6
1982 <sup>2</sup>	46,518	16,854	30,244	11,664	76,761	28,518	21.4	21.9
1983 <sup>2</sup>	45,676	16,111	27,843	10,428	73,519	26,539	18.8	19.7
1984	45,770	15,970	29,608	10,826	75,378	26,796	17.9	19.0
1985	50,197	17,150	31,894	11,090	82,091	28,240	18.1	19.1
1986	52,043	..	33,809	..	85,852	..	..	..

<sup>1</sup> Actual expenditures, 1974-84; preliminary actual, 1985; revised intentions, 1986.

<sup>2</sup> The percentage is calculated by dividing "Gross Fixed Capital Formation", as defined by the National Income and Expenditure Accounts, by the total "Gross National Expenditure".

### 7.17 Summary of capital and repair expenditures, by economic sector 1984-86<sup>1</sup> (million dollars)

Year and sector	Capital expenditures			Repair expenditures			Capital and repair expenditures		
	Construction activity	Machinery and equipment	Sub-total	Construction activity	Machinery and equipment	Sub-total	Construction activity	Machinery and equipment	Total
1984									
Agriculture and fishing	1,239	2,940	4,179	329	1,148	1,477	1,568	4,088	5,656
Forestry	100	100	200	88	253	342	188	353	541
Mining, quarrying and oil wells	8,244	1,631	9,875	430	2,025	2,456	8,675	3,657	12,331
Manufacturing	1,824	7,063	8,887	918	4,830	5,748	2,742	11,893	14,635
Utilities	7,236	7,053	14,288	1,843	4,763	6,606	9,078	11,816	20,894
Construction industry	208	1,092	1,299	29	834	862	236	1,926	2,162
Housing	12,580	—	12,580	4,067	—	4,067	16,647	—	16,647
Trade	709	1,777	2,486	289	325	614	997	2,102	3,100
Finance, insurance and real estate	3,369	861	4,230	417	213	629	3,785	1,074	4,859
Commercial services	989	4,378	5,367	177	468	645	1,166	4,846	6,012
Institutions	1,939	955	2,893	505	207	711	2,443	1,161	3,604
Government departments	7,336	1,759	9,095	1,711	457	2,169	9,047	2,216	11,263
Total	45,770	29,608	75,378	10,803	15,523	26,326	56,573	45,131	101,704

### 7.17 Summary of capital and repair expenditures, by economic sector 1984-86<sup>1</sup> (million dollars) (concluded)

Year and sector	Capital expenditures			Repair expenditures			Capital and repair expenditures		
	Con- struction activity	Machinery and equipment	Sub- total	Con- struction activity	Machinery and equipment	Sub- total	Con- struction activity	Machinery and equipment	Total
1985									
Agriculture and fishing	1,131	2,736	3,867	277	1,244	1,521	1,408	3,981	5,388
Forestry	115	88	203	89	229	319	205	317	522
Mining, quarrying and oil wells	9,066	1,601	10,668	512	2,156	2,668	9,579	3,757	13,335
Manufacturing	2,200	8,803	11,004	963	5,096	6,058	3,163	13,899	17,062
Utilities	6,815	6,735	13,551	1,933	5,030	6,963	8,748	11,765	20,514
Construction industry	226	1,187	1,413	31	907	938	257	2,093	2,351
Housing	14,437	—	14,437	4,313	—	4,313	18,750	—	18,750
Trade	676	1,656	2,332	253	296	549	930	1,952	2,881
Finance, insurance and real estate	4,266	1,265	5,531	523	260	783	4,789	1,525	6,314
Commercial services	1,188	5,336	6,524	207	558	765	1,395	5,894	7,289
Institutions	2,117	908	3,025	488	213	701	2,606	1,121	3,726
Government departments	7,959	1,579	9,538	1,661	417	2,078	9,620	1,996	11,616
Total	50,197	31,894	82,091	11,252	16,405	27,656	61,449	48,298	109,747
1986									
Agriculture and fishing	1,057	2,538	3,595	286	1,307	1,593	1,342	3,845	5,188
Forestry	107	102	209	96	218	314	203	320	523
Mining, quarrying and oil wells	8,272	1,587	9,859	514	2,159	2,673	8,786	3,746	12,532
Manufacturing	2,449	10,438	12,887	1,012	5,280	6,292	3,461	15,718	19,179
Utilities	6,673	6,634	13,307	2,030	5,136	7,166	8,703	11,770	20,473
Construction industry	235	1,232	1,467	32	941	974	267	2,173	2,440
Housing	16,600	—	16,600	4,577	—	4,577	21,177	—	21,177
Trade	741	1,705	2,446	254	307	560	994	2,012	3,006
Finance, insurance and real estate	4,586	1,243	5,829	608	303	911	5,194	1,546	6,740
Commercial services	1,078	5,819	6,896	217	627	844	1,295	6,446	7,740
Institutions	2,266	915	3,181	522	215	737	2,789	1,130	3,919
Government departments	7,979	1,596	9,575	1,632	420	2,052	9,611	2,016	11,628
Total	52,043	33,809	85,852	11,779	16,914	28,693	63,822	50,723	114,545

<sup>1</sup> Actual expenditures, 1984; preliminary actual, 1985; revised intentions, 1986.

### 7.18 Capital and repair expenditures, by province, 1984-86<sup>1,2</sup> (million dollars)

Year and province or territory	Capital expenditures			Repair expenditures			Capital and repair expenditures		
	Con- struction	Machinery and equipment	Sub- total	Con- struction	Machinery and equipment	Sub- total	Con- struction	Machinery and equipment	Total
1984									
Newfoundland	1,417	383	1,800	198	325	523	1,615	708	2,323
Prince Edward Island	140	84	224	52	41	92	192	124	316
Nova Scotia	1,707	838	2,545	397	358	755	2,104	1,196	3,300
New Brunswick	928	646	1,574	271	420	691	1,199	1,065	2,265
Quebec	9,199	6,548	15,748	2,580	3,082	5,662	11,780	9,630	21,410
Ontario	13,164	11,726	24,891	3,606	5,371	8,977	16,770	17,098	33,867
Manitoba	1,426	1,112	2,538	447	704	1,151	1,873	1,816	3,689
Saskatchewan	2,133	1,531	3,664	480	842	1,322	2,612	2,373	4,986
Alberta	8,161	3,713	11,874	1,370	2,118	3,488	9,531	5,831	15,361
British Columbia	5,979	2,808	8,787	1,297	2,105	3,401	7,275	4,913	12,189
Yukon and Northwest Territories	1,515	219	1,733	106	158	265	1,621	377	1,998
Total	45,770	29,608	75,378	10,803	15,523	26,326	56,573	45,131	101,704

**7.18 Capital and repair expenditures, by province, 1984-86<sup>1,2</sup> (million dollars) (concluded)**

Year and province or territory	Capital expenditures			Repair expenditures			Capital and repair expenditures		
	Con- struction	Machinery and equipment	Sub- total	Con- struction	Machinery and equipment	Sub- total	Con- struction	Machinery and equipment	Total
1985									
Newfoundland	1,397	439	1,836	209	323	532	1,606	762	2,368
Prince Edward Island	159	87	246	55	43	98	214	131	345
Nova Scotia	1,930	943	2,874	386	370	756	2,317	1,313	3,630
New Brunswick	1,018	747	1,764	262	434	696	1,279	1,181	2,460
Quebec	9,967	7,013	16,980	2,619	3,374	5,994	12,586	10,387	22,973
Ontario	15,113	13,422	28,535	3,839	5,633	9,473	18,953	19,055	38,007
Manitoba	1,669	1,188	2,857	445	730	1,174	2,114	1,918	4,032
Saskatchewan	2,436	1,459	3,894	478	874	1,352	2,914	2,332	5,246
Alberta	9,153	3,551	12,704	1,557	2,319	3,876	10,709	5,870	16,579
British Columbia	5,991	2,872	8,864	1,274	2,152	3,426	7,265	5,024	12,289
Yukon and Northwest Territories	1,364	173	1,537	128	153	281	1,492	325	1,817
Total	50,197	31,894	82,091	11,252	16,405	27,656	61,449	48,298	109,747
1986									
Newfoundland	1,204	544	1,749	221	324	545	1,426	868	2,294
Prince Edward Island	171	75	246	59	46	105	229	121	350
Nova Scotia	1,559	898	2,457	407	382	789	1,966	1,280	3,246
New Brunswick	984	669	1,653	279	440	720	1,263	1,110	2,373
Quebec	10,362	7,224	17,586	2,706	3,509	6,215	13,068	10,732	23,800
Ontario	16,923	15,079	32,002	4,056	5,870	9,925	20,979	20,949	41,928
Manitoba	1,931	1,180	3,111	459	735	1,194	2,390	1,915	4,305
Saskatchewan	2,356	1,410	3,766	492	891	1,383	2,848	2,301	5,149
Alberta	10,207	3,645	13,852	1,617	2,371	3,988	11,824	6,016	17,841
British Columbia	5,359	2,912	8,271	1,355	2,199	3,553	6,713	5,110	11,824
Yukon and Northwest Territories	989	172	1,160	128	149	276	1,116	320	1,437
Total	52,043	33,809	85,852	11,779	16,914	28,693	63,822	50,723	114,545

<sup>1</sup> Actual expenditures, 1984; preliminary actual, 1985; revised intentions, 1986.<sup>2</sup> Capital expenditures on machinery and equipment include an estimate for "capital items charged to operating expenses", in the manufacturing, utilities and trade totals.**7.19 Value of building construction work performed, by type of structure, 1983-86<sup>1</sup> (million dollars)**

Item	1983			1984		
	New	Repair	Total	New	Repair	Total
Residential						
Single detached	6,373	—	6,373	6,045	—	6,045
Semi-detached (incl. duplexes)	352	—	352	303	—	303
Apartments (incl. row housing)	2,444	—	2,444	2,339	—	2,339
Other	3,825	3,857	7,682	3,894	4,067	7,961
Sub-total, residential	12,994	3,857	16,851	12,580	4,067	16,647
Industrial						
Factories, plants, workshops, food canneries and smelters	1,202	590	1,793	1,541	711	2,252
Mine and mine mill buildings	442	62	505	190	59	249
Railway stations and roadway buildings	18	45	63	39	38	77
Railway shops, engine houses, water and fuel stations	52	38	89	90	40	130
Sub-total, industrial	1,714	736	2,450	1,860	848	2,708

**7.19 Value of building construction work performed, by type of structure, 1983-86<sup>1</sup>**  
 (million dollars) (continued)

Item	1983			1984		
	New	Repair	Total	New	Repair	Total
<b>Commercial</b>						
Warehouses, storehouses and refrigerated storage	473	112	585	455	116	571
Grain elevators	178	25	203	162	26	188
Hotels, clubs, restaurants, cafeterias and tourist cabins	444	96	540	528	109	637
Office buildings	2,816	375	3,191	2,701	485	3,186
Stores, retail and wholesale	871	205	1,075	1,020	288	1,309
Garages and service stations	189	137	326	246	149	395
Theatres, arenas, amusement and recreational buildings	500	55	554	759	79	837
Laundries and dry-cleaning establishments	3	3	7	3	3	6
<b>Sub-total, commercial</b>	<b>5,475</b>	<b>1,008</b>	<b>6,482</b>	<b>5,874</b>	<b>1,255</b>	<b>7,129</b>
<b>Institutional</b>						
Schools and other education buildings	969	306	1,275	901	301	1,203
Churches and other religious buildings	114	26	141	116	36	152
Hospitals, sanatoria, clinics and first-aid stations	945	170	1,114	851	160	1,011
Other	477	58	534	492	67	559
<b>Sub-total, institutional</b>	<b>2,505</b>	<b>560</b>	<b>3,065</b>	<b>2,360</b>	<b>564</b>	<b>2,924</b>
<b>Other buildings</b>						
Farm buildings (excl. dwellings)	785	234	1,019	804	210	1,014
Broadcasting, radio and television, relay and booster stations, and telephone exchanges	126	48	174	104	44	148
Aircraft hangars	28	20	48	15	27	42
Passenger terminals, bus, boat, air and other	89	35	124	156	13	169
Armouries, barracks and drill halls	29	22	51	39	25	64
Bunkhouses, dormitories, camp cookeries, bush depots and camps	16	17	32	18	17	36
Laboratories	147	10	156	193	17	210
Other	223	76	299	241	79	320
<b>Sub-total, other buildings</b>	<b>1,443</b>	<b>462</b>	<b>1,905</b>	<b>1,570</b>	<b>433</b>	<b>2,003</b>
<b>Total</b>	<b>24,131</b>	<b>6,622</b>	<b>30,753</b>	<b>24,245</b>	<b>7,167</b>	<b>31,412</b>
	1985			1986		
	New	Repair	Total	New	Repair	Total
<b>Residential</b>						
Single detached	7,215	—	7,215	8,510	—	8,510
Semi-detached (incl. duplexes)	346	—	346	300	—	300
Apartments (incl. row housing)	2,605	—	2,605	2,962	—	2,962
Other	4,270	4,313	8,583	4,827	4,577	9,404
<b>Sub-total, residential</b>	<b>14,437</b>	<b>4,313</b>	<b>18,750</b>	<b>16,601</b>	<b>4,577</b>	<b>21,177</b>
<b>Industrial</b>						
Factories, plants, workshops, food canneries and smelters	2,045	751	2,796	2,239	792	3,031
Mine and mine mill buildings	176	55	230	135	55	191
Railway stations and roadway buildings	30	44	74	25	45	70
Railway shops, engine houses, water and fuel stations	73	42	115	61	43	104
<b>Sub-total, industrial</b>	<b>2,324</b>	<b>891</b>	<b>3,215</b>	<b>2,460</b>	<b>936</b>	<b>3,395</b>
<b>Commercial</b>						
Warehouses, storehouses and refrigerated storage	475	124	599	424	130	554
Grain elevators	92	26	118	86	26	112
Hotels, clubs, restaurants, cafeterias and tourist cabins	594	115	709	571	120	690
Office buildings	2,953	543	3,496	3,391	590	3,981
Stores, retail and wholesale	1,560	288	1,849	1,585	322	1,907



### 7.19 Value of building construction work performed, by type of structure, 1983-86<sup>1</sup> (million dollars) (concluded)

Item	1985			1986		
	New	Repair	Total	New	Repair	Total
Commercial (continued)						
Garages and service stations	257	153	410	293	158	451
Theatres, arenas, amusement and recreational buildings	923	92	1,014	765	96	861
Laundries and dry-cleaning establishments	3	3	7	4	3	6
Sub-total, commercial	6,857	1,344	8,201	7,118	1,445	8,563
Institutional						
Schools and other education buildings	986	302	1,288	1,126	330	1,456
Churches and other religious buildings	101	21	122	85	23	107
Hospitals, sanatoria, clinics and first-aid stations	976	156	1,131	1,014	161	1,175
Other	536	65	602	596	70	666
Sub-total, institutional	2,599	545	3,143	2,821	583	3,404
Other buildings						
Farm buildings (excl. dwellings)	739	176	915	688	181	869
Broadcasting, radio and television, relay and booster stations, and telephone exchanges	150	52	201	168	55	224
Aircraft hangars	17	25	42	17	26	42
Passenger terminals, bus, boat, air and other	151	13	165	133	14	147
Armouries, barracks and drill halls	47	23	70	47	24	71
Bunkhouses, dormitories, camp cookeries, bush depots and camps	20	16	37	21	17	38
Laboratories	210	20	230	228	23	251
Other	286	79	366	283	84	367
Sub-total, other buildings	1,620	405	2,025	1,585	424	2,010
Total	27,836	7,499	35,335	30,584	7,965	38,549

<sup>1</sup> Actual expenditures, 1983-84; preliminary actual, 1985; intentions, 1986.

### 7.20 Value of engineering construction work performed, by type of structure, 1983-86<sup>1</sup> (million dollars)

Type of structure	1983			1984		
	New	Repair	Total	New	Repair	Total
Marine						
Docks, wharves, piers and breakwater	179	50	229	230	60	290
Retaining walls, embankments and riprapping	15	7	22	13	8	21
Canals and waterways	28	9	36	45	7	51
Dredging and pile driving	34	17	51	16	16	32
Dyke construction	21	2	23	15	2	17
Logging booms	-	1	1	-	1	1
Other	52	11	63	57	5	62
Sub-total, marine	330	96	426	376	98	474
Road, highway and airport runways						
Highway, road and street construction (incl. grading, scraping, oiling, filling)	3,143	961	4,104	3,114	916	4,029
Parking lots	45	12	58	55	13	68
Sidewalks and paths	64	10	74	74	12	86
Runways, landing fields and tarmac	79	10	89	81	12	93
Sub-total, road, highway and airport runways	3,332	994	4,326	3,324	952	4,276

### 7.20 Value of engineering construction work performed, by type of structure, 1983-86<sup>1</sup> (million dollars) (continued)

Type of structure	1983			1984		
	New	Repair	Total	New	Repair	Total
Waterworks and sewage systems						
Tile drains, drainage ditches and storm sewers	441	72	513	453	68	521
Water mains, hydrants and services	476	94	571	477	101	577
Sewage systems, disposal plants and connections	692	51	743	632	57	689
Water pumping stations and filtration plants	354	19	373	320	26	346
Water storage tanks	25	5	30	31	5	37
Sub-total, waterworks and sewage systems	1,988	241	2,230	1,913	257	2,170
Dams and irrigation						
Dams and reservoirs	50	7	57	47	7	55
Irrigation and land reclamation projects	202	32	234	190	28	218
Sub-total, dams and irrigation	252	39	291	237	35	272
Electric power						
Electric power generating plants, including water conveying and controlling structures	2,418	93	2,511	1,668	134	1,802
Electric transformer stations	13	5	18	5	10	15
Power transmission and distribution lines, and trolley wires	1,591	227	1,818	1,580	216	1,796
Street lighting	31	18	49	32	18	50
Sub-total, electric power	4,053	344	4,397	3,285	378	3,663
Railway, telephone and telegraph						
Railway tracks and roadbeds	947	593	1,540	1,016	614	1,630
Signals and interlockers	31	42	73	36	73	109
Telegraph, telephone and cablevision lines, and underground and marine cables and microwave	592	263	856	701	283	985
Sub-total, railway, telephone and telegraph	1,571	898	2,469	1,753	971	2,724
Gas and oil facilities						
Gas mains and services	350	43	393	428	46	473
Pumping stations, oil	—	—	—	—	1	1
Pumping stations, gas	8	3	11	12	4	16
Oil storage tanks	55	6	60	26	14	41
Gas storage tanks	16	—	16	21	15	36
Oil pipelines	117	23	140	338	26	364
Gas pipelines	437	20	457	365	16	381
Oil and gas wells	5,663	304	5,966	6,247	103	6,350
Oil refinery - processing units	626	174	800	296	190	486
Natural gas processing plants	160	124	284	223	181	404
Sub-total, gas and oil facilities	7,433	695	8,128	7,955	597	8,552
Other engineering						
Bridges, trestles, culverts overpasses and viaducts	320	112	433	413	138	551
Tunnels and subways	194	10	204	110	11	120
Incinerators	5	1	6	8	1	8
Park systems, landscaping and sodding	226	34	260	262	40	302
Swimming pools, tennis courts and outdoor recreation facilities	78	14	92	123	11	134
Mine shafts and other below surface workings	935	12	947	1,158	7	1,166
Fences, snowsheds, signs and guard rails	169	69	237	168	65	233
Other engineering	662	88	750	440	76	516
Sub-total, other engineering	2,589	340	2,930	2,682	349	3,031
Total	21,547	3,648	25,195	21,526	3,637	25,163

## 7.20 Value of engineering construction work performed, by type of structure, 1983-86<sup>1</sup> (million dollars) (continued)

Type of structure	1985			1986		
	New	Repair	Total	New	Repair	Total
Marine						
Docks, wharves, piers and breakwater	217	56	274	217	54	270
Retaining walls, embankments and riprapping	15	3	18	15	3	18
Canals and waterways	55	12	68	56	12	67
Dredging and pile driving	18	13	31	17	13	30
Dyke construction	22	2	23	19	2	21
Logging booms	--	1	1	--	1	1
Other	62	7	69	67	8	75
Sub-total, marine	390	94	484	391	92	483
Road, highway and airport runways						
Highway, road and street construction (incl. grading, scraping, oiling, filling)	3,393	934	4,327	3,277	913	4,190
Parking lots	106	24	130	110	25	135
Sidewalks and paths	77	11	87	76	12	89
Runways, landing fields and tarmac	91	12	104	88	12	100
Sub-total, road, highway and airport runways	3,667	981	4,648	3,551	962	4,514
Waterworks and sewage systems						
Tile drains, drainage ditches and storm sewers	440	59	499	446	60	506
Water mains, hydrants and services	508	89	597	540	84	624
Sewage systems, disposal plants and connections	629	46	675	683	41	723
Water pumping stations and filtration plants	326	22	348	342	18	360
Water storage tanks	24	4	29	20	5	24
Sub-total, waterworks and sewage systems	1,927	221	2,148	2,030	207	2,237
Dams and irrigation						
Dams and reservoirs	55	4	59	95	3	98
Irrigation and land reclamation projects	221	24	245	202	25	227
Sub-total, dams and irrigation	276	28	303	296	28	324
Electric power						
Electric power generating plants, including water conveying and controlling structures	1,420	131	1,551	1,222	138	1,360
Electric transformer stations	8	9	15	16	9	25
Power transmission and distribution lines, and trolley wires	1,654	225	1,879	1,817	233	2,051
Street lighting	36	13	49	39	16	55
Sub-total, electric power	3,118	376	3,494	3,095	396	3,491
Railway, telephone and telegraph						
Railway tracks and roadbeds	986	653	1,639	798	689	1,488
Signals and interlockers	34	69	103	27	72	99
Telegraph, telephone and cablevision lines, and underground and marine cables and microwave	682	304	985	771	319	1,090
Sub-total, railway, telephone and telegraph	1,701	1,026	2,728	1,596	1,080	2,677
Gas and oil facilities						
Gas mains and services	395	48	442	347	53	399
Pumping stations, oil	--	--	--	--	--	--
Pumping stations, gas	10	3	13	10	4	14
Oil storage tanks	24	10	34	38	12	49
Gas storage tanks	13	6	19	16	7	22
Oil pipelines	312	28	340	342	32	373
Gas pipelines	222	21	243	187	24	211
Oil and gas wells	7,005	297	7,301	6,468	290	6,758
Oil refinery - processing units	162	210	372	181	215	396
Natural gas processing plants	325	88	412	264	93	357
Sub-total, gas and oil facilities	8,467	711	9,178	7,852	728	8,580

## 7.20 Value of engineering construction work performed, by type of structure, 1983-86<sup>1</sup> (million dollars) (concluded)

Type of structure	1985			1986		
	New	Repair	Total	New	Repair	Total
Other engineering						
Bridges, trestles, culverts						
overpasses and viaducts	501	112	613	384	115	499
Tunnels and subways	100	11	110	117	12	128
Incinerators	19	2	21	39	--	39
Park systems, landscaping and sodding	286	38	324	288	37	325
Swimming pools, tennis courts and outdoor recreation facilities	129	17	146	88	16	104
Mine shafts and other below surface workings	1,000	6	1,005	771	6	777
Fences, snowsheds, signs and guard rails	153	62	215	147	63	210
Other engineering	626	70	696	813	71	884
Sub-total, other engineering	2,813	318	3,131	2,647	320	2,967
Total	22,360	3,754	26,114	21,459	3,814	25,273

<sup>1</sup> Actual expenditures, 1983-84; preliminary actual, 1985; intentions, 1986.

## 7.21 Machinery and equipment price indexes, 1982-85 (1971 = 100)

Division	1982	1983	1984	1985
Agriculture	251.8	263.0	270.7	276.8
Forestry	277.5	286.8	303.0	318.2
Fishing	281.3	296.8	313.7	320.9
Mines, quarries and oil wells	316.5	321.7	337.1	353.9
Manufacturing	290.0	298.0	312.9	331.2
Construction	256.0	260.8	275.4	290.6
Transportation, communications, storage and utilities	252.8	262.7	275.3	288.2
Trade	235.5	243.1	255.8	269.9
Finance, insurance and real estate	209.4	214.7	224.4	235.5
Community, business and personal services	201.3	205.9	215.3	227.9
Public administration	245.0	254.7	269.5	285.9
Total	261.8	270.1	283.0	297.4

### Sources

7.1, 7.2 Canada Mortgage and Housing Corporation.

7.3, 7.6 - 7.9, 7.21 Prices Division, Statistics Canada.

7.4 Housing, Family and Social Statistics Division, Statistics Canada.

7.5 Household Surveys Division, Statistics Canada.

7.10 - 7.20 Science, Technology and Capital Stock Division, Statistics Canada.



CHAPTER 8

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**FORESTS, FISH AND FURS**

## CHAPTER 8

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### FORESTS, FISH AND FURS

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## THEN



"In 1921 the value of pelts of ranch-bred animals accounted for only 3 p.c. of the total value of raw fur production, while in 1937 it had risen to approximately 40 p.c." (1939)

"There is no doubt whatever that the most valuable sea fisheries in the Atlantic are close by the shores of the Dominion, viz.: those on the Banks of Newfoundland, the St. George's Banks in the Gulf of St. Lawrence, and the Bay of Fundy. It is known that there is no mackerel left on the shores of the United States, while the cod, the herring, and other valuable fish in commerce never go south of the cold waters which surround our coasts." (1908)

"The Lumber Trade of Canada is of the highest importance to the country . . . the exports of products of the forest have frequently approached, and in some years exceeded, those of the products of agriculture . . . No country in the world produces such fine and large timber in merchantable quantities as Canada . . ." (1907)

## NOW

Canada is the world's leading exporter of forest products. In 1985, Canada's exports of forest products, valued at \$10.2 billion, accounted for 22% of the world total.

One of the biggest forest problems in recent years has been the spruce budworm which defoliated 345 200 ha in 1985.

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**FURRIERS,**

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Hudson Bay and Russia Sables, Ladies' Real Sealskin Jackets, Gentleman's Furs, Sleigh Robes, Fur Coats, Snow-Shoes, Moccasins, &c., all at very moderate prices.

Orders solicited, which will have our best attention.

## A. LAPOINTE & SON,

**HATTERS AND FURRIERS,**

*53 St. John Street.*

Ladies' Sealskin Jackets, Gentlemen's Furs, Sleigh Robes, Fur Coats, Snow-Shoes, Moccasins, &c., all at very moderate prices.

We are makers and repairers of all kinds of Hats.

Orders solicited, which will have our best attention.

Commercial fish landings in 1985 reached 1.4 million tonnes, 11% higher than in 1984 and equal to the previous record set in 1981.

The value of the 1984-85 Canadian production of raw furs amounted to \$105.5 million, with 47% from wildlife pelts and 53% from farm pelts.



## CHAPTER 8

# FORESTS, FISH AND FURS

Forests, fish and fur-bearing animals were sources of shelter, food and clothing from the time of earliest habitation in what is now Canada. Development of these resources and the industries resulting from their use have played a continuing role in Canada's growth.

Canada is the world's leading exporter of forest products. In 1985, Canada's exports of forest products, valued at \$16.2 billion, accounted for 22% of the world total.

Canada maintained its status in 1985 as the world's leading exporter of fish products in terms of value for the eighth consecutive year. Preliminary statistics indicate that in 1985 Canada sent abroad \$1.86 million worth of fishery products, up 16% from the previous year. Most went to the United States, followed by Japan and the European Economic Community. On the volume scale, Canada exported almost three quarters of its production or 556 154 tonnes (preliminary figures). The most popular export items were cod, flatfish, crab, lobster and scallop from the Atlantic Coast, and herring and salmon from the Pacific Coast.

In the fur industry, Canada's exports of raw furs in 1985-86 amounted to \$97.1 million, down from \$101.7 million in 1984-85 and up from \$96.8 million in 1983-84.

### 8.1 Forestry

The forest land of Canada supports largely coniferous forests and makes up 44% of the country's total land area. Of this forest land area, a little less than 3% is reserved: this includes parks and other reserves where, by law, the forest is not available for harvesting. In 1984, 168 million m<sup>3</sup> of wood were cut. Timber harvesting and processing generated work for more than 270,000 persons with nearly \$7 billion in salaries and wages. The value added by processing beyond the raw materials stage amounted to \$11.5 billion, which was 12.3% of the value added of all goods-producing industries.

British Columbia, Ontario and Quebec are the leading timber-producing provinces. In 1985,

British Columbia sawmills produced 62% of all lumber in Canada and most of softwood plywood. Ontario and Quebec produced most of the wood pulp.

Forests are a vital part of the Canadian environment and are integral components of many essential ecological processes. These include hydrologic and atmospheric cycles, climatic amelioration, and nutrient and soil conservation. They provide habitat for a large number of animal and plant species, many of which have important economic and recreational values. The forest environment provides many other recreational opportunities, and plays a significant role in Canada's important tourism industry.

#### 8.1.1 Forest resources

Canada's forests cover a vast area in the north temperate zone, and wide variations in physiography, soil and climate cause marked differences. Hence, eight fairly well-defined forest regions can be recognized. By far the largest is the Boreal region which represents 82% of total forested area. The Great Lakes-St. Lawrence region covers 6.5% and the Subalpine region, 3.7%. The Montane, Coast and Acadian regions each account for approximately 2%, while the remaining Columbia and Deciduous regions each represent less than 1%.

Inventories of Canadian forest resources are made periodically by provincial forest authorities and, with their co-operation, the lead federal forestry agency, the Canadian Forestry Service, compiles national statistics. The latest such statistics are for 1981 with the next national forest inventory scheduled to be published in 1988.

The 1981 national forest inventory reported on an area of 3.4 million km<sup>2</sup> of inventoried forest land (see Table 8.1). Provincial Crown forest land constitutes 83% of the productive forest land of Canada, leaving 10% under federal jurisdiction and 7% in private ownership. Private ownerships are made up of small private woodlots and larger industrial free-hold parcels. Private lands are still an important source of timber production, as well as providing many opportunities for recreation and habitat.

Chart 8.1

**Canada's forest inventory (thousand km<sup>2</sup>)**

**Canada total 3 425**

**Prince Edward Island  
3**



**Nova Scotia  
41**



**New Brunswick  
65**



**Saskatchewan  
123**



**Newfoundland  
142**



**Manitoba  
240**



**Yukon  
242**



**Alberta  
331**



**Ontario  
432**



**British Columbia  
566**



**Northwest Territories  
615**



**Quebec  
624**



The estimates of wood volume, given in Table 8.1, are also subject to continued revision as more accurate and complete inventories are compiled. The 1981 national forest inventory is more standardized across the country than in the past and is derived from provincial forest inventories. The 1981 volume estimates encompass only inventoried areas and estimates of wood volume are based only on productive forest land. The estimates, therefore, are low because 20% of the forest lands were not yet inventoried at that time but are representative of commercially accessible timber supplies.

### 8.1.2 Forest depletion

The average annual forest utilization by cutting is shown in Table 8.2. The primary sources of Canada's current wood production are the inventoried, non-reserved, productive forest lands that are south of 60°N latitude. These lands constitute 194 million hectares or nearly 75% of productive forest lands in Canada. It is estimated that the annual allowable cut is 225 million m<sup>3</sup>. From 1980 to 1984, the annual average of wood volume harvested amounted to about 150 million m<sup>3</sup>. In addition to cutting, extensive forest depletion is caused by fire (see Table 8.3) and insects and diseases (see Table 8.4). Preliminary estimates of these losses average between 150 to 220 million m<sup>3</sup> annually. This gives a total yearly depletion of around 300 to 350 million m<sup>3</sup>. Although this is still within the estimated mean annual growth of the forests, localized shortages are becoming evident. Coupled with this, the demand for forest products is expected to increase in the long run.

In order to be able to participate in expanding markets for forest products, forest growth, particularly in accessible areas, must therefore be increased accordingly. In 1980, the Canadian Council of Resource and Environment Ministers endorsed a timber supply target of 210 million m<sup>3</sup> annually by the year 2000. This represents approximately a 40% increase above the 1978-83 average harvest. This increase will be possible through a concerted nationwide forest renewal and management program which is supported by forest development agreements between the provinces and the federal government, totalling \$1.1 billion. Under the terms of the agreements, planting of cutovers is to be significantly increased, and areas receiving silvicultural treatments are to increase dramatically.

### 8.1.3 Forest administration, protection and regeneration

South of 60° latitude the provinces own 90% of the forests in the form of provincial Crown land. The rest is reserved for special purposes such

as national parks or are private holdings. The Constitution Act, 1867 specifies that the provinces have direct responsibility for management of their public lands and the timber and wood on them. The federal government owns or administers about 85 million hectares, but most of this land is in the Yukon and Northwest Territories and is largely unsuitable for commercial timber production. Federal ownership in the provinces is only about 5.2 million hectares and mostly in national parks and military reserves and Indian lands which account for 2.6 million hectares. The federal government has major or shared jurisdiction over many policies and activities related to forest resources, fiscal management, regional development, trade and tariffs, transportation and environment. At least six federal departments have a major interest in forestry.

**Federal.** The principal federal forestry agency is the Canadian Forestry Service (CFS) of Agriculture Canada. The CFS provides national leadership through the development, co-ordination and implementation of federal policies and programs to enhance long-term economic, social and environmental benefits to Canadians, from the forest sector.

The CFS undertakes research and development initiatives in the forest sector and encourages the transfer of technology from research to the provinces and industry. Its challenges and concerns are wide-ranging, and include cost-effective forest management and protection methods; chemical and biological pest control strategies; pesticide application technology; environmental impact of forestry practices; tree genetics; the use of biotechnology to improve growth and yields; and research on forest ecology. Research includes the use of sophisticated satellite technology to maintain a comprehensive national forest inventory and applications of high technology to improve methods of forecasting, detecting and suppressing forest fires.

In addition to conducting extensive forestry research, the CFS administers co-operative research programs with the provinces and industry; gives financial support for forestry research and provides technical advice, scientific information and specialized services to federal departments and agencies, the provinces and the forest sector.

The CFS is responsible for the formulation and co-ordination of federal forest policy. It also provides detailed statistics and economic information to forestry user groups, encouragement of new investments in the forest resource and Canadian forest products exports, as well as an extensive program of grants and contributions



to universities and forestry organizations which totalled over \$19.3 million in 1985-86.

The CFS has negotiated forest resource development agreements worth more than \$1 billion with the provinces to encourage forestry renewal on private and public lands; to ensure long-term timber supplies and to foster regional economic development. Depending on specific provincial needs, these agreements may provide for reforestation, intensive forest management, silviculture, access roads, inventory and planning, industrial development, private or group ventures, research, technology transfer, training, administration and public information. The CFS also provides forestry advice for the management of federal lands and directly manages forest lands on several Department of National Defence properties and pursues policies and programs which stimulate employment in the forest sector.

**Provincial.** All forest land within the provinces, with the exception of private land, national parks, federal forest experiment stations, military areas and Indian reserves (except in Newfoundland), is administered by the respective provincial governments.

The provincial forest services have traditionally concentrated on the management, protection and utilization of the forest resources.

*Tenure system and timber allocation.* The tenure arrangements, in force in the provinces, are generally intended to satisfy goals of providing a means of allocating public timber in order to maximize returns from the resource to the residents and the provinces, to ensure maximum utilization of the timber resource and to facilitate effective forest management. The bulk of cutting rights to provincial Crown timber remains held in the form of long-term arrangements, which have been or are evolving in almost all provinces in the direction of increasing the responsibility of industry for managing the forest lands for which they hold licences, generally in return for some form of compensation. In provinces where there is a large degree of private ownership of forest land, forest policy is to provide incentives for greater utilization of timber from those lands. Some provinces are also requiring forest companies holding long-term licences, involving large forest areas of volumes of timber, to make timber surplus to their needs available to smaller firms. Otherwise, smaller timber cutting rights are allocated by quota privileges or through competitive bidding. Timber resources are fully allocated in most provinces. Fees for holding cutting rights and timber harvested are generally set administratively or through negotiation. Stumpage rates vary by location, species, and

product category, and are normally adjusted regularly to reflect prevailing market conditions.

*Forest protection.* The reduction of losses of timber and other forest values due to forest fires, insect infestations and disease epidemics continues to be a major undertaking of the provincial forestry agencies. Losses vary regionally but all jurisdictions are striving to enhance their capability to detect, control or suppress insects, disease and fires. In addition, the significant increase in reforestation investments have to be protected from competition by weeds and brush.

Provincial governments have stepped up public awareness campaigns in an effort to lessen the number of human-caused forest fires. As lightning remains the primary cause of forest fires, automated lightning detection networks have been or are being installed by several provincial forestry agencies. Used in connection with other elements of fire detection networks, including aerial and ground patrols, lookout towers and improved heat detection equipment, detection capability is being expanded in several provinces. A national training group has been formed to standardize training to make inter-agency fire-fighting assistance among jurisdictions more effective. Most provinces participate in the Canadian inter-agency forest fire centre at Winnipeg which co-ordinates the sharing of personnel and equipment between provinces and territories when they need support to handle an extreme fire situation.

Several provinces have highly developed programs for fire detection and fire-fighting. Nova Scotia, for example, has 35 observation towers and an aerial patrol service with five helicopters and two fixed-wing aircraft.

In Quebec, a new system to combat forest fires has been developed which uses computers, satellites and patrol planes, as well as data obtained from sounding devices, weather stations, radar and lightning detectors. The Maniwaki Technology Transfer Centre, established in the summer of 1986, processes data from points throughout the province and provides fire related forecasts.

In Ontario, fires are detected by aerial patrols using contracted aircraft, in conjunction with a lightning locator system and by public reports. To assist in fighting fires, water bombers and helicopters are utilized and several fire crews employed. A communications system includes a network of radios, telex and facsimile. A network of 125 primary weather stations supplies information to determine fire weather indexes and aids in detection patrol planning.

Manitoba also has a network of lookout towers and an aircraft detection system and ground patrols. Public education in fire prevention is



carried out through radio, television, newspapers, pamphlets, signs, films and tours.

Saskatchewan has a network of 46 lookout towers and an aircraft patrol during the dry season. During periods of extreme fire hazards, additional detection aircraft are utilized. Helicopters and fixed-wing aircraft capable of water-dropping provide aerial support. There are also land-based aircraft which drop long-term fire retardants and skimmer-type water bombers.

Alberta has a fire detection system consisting of 145 lookout towers supplemented by aircraft patrols. It also operates an automatic lightning detection system and has integrated this system with direction finders in British Columbia and Northwest Territories. Alberta's fire-fighting force consists of several crews equipped with helicopters, land-based airtankers and amphibious airtankers. The airtanker fleet operates from 15 bases, all equipped with long-term fire retardants. Manpower support is available from approximately 6,000 trained fire fighters.

British Columbia has a lightning location network that covers the entire province. It also has lookouts, air patrols, crews capable of descending to inaccessible terrain from a hovering helicopter, airtanker fleets and airtanker bases.

Budworms remain the most damaging forest insect pest in Central and Eastern Canada. While not as severe as in 1980 when 1 380 000 ha (hectares) of the forested area of Nova Scotia were defoliated by spruce budworm, many areas continue to be attacked. In 1985, 345 200 ha were defoliated by the budworm. In Quebec, the amount of forest land infested by spruce budworm has decreased significantly since 1981. In 1986, 2 million hectares were infested, compared with almost 13 million hectares at the peak of the infestation. Some spraying programs and research are continuing to combat this problem.

Three insects represent the greatest threat to Ontario's forest resource: the gypsy moth, the jackpine budworm, and the spruce budworm. In 1986, Ontario undertook its largest protection spray operation against forest insect pests. About 3% of a 16 million hectare infestation area was targeted for protection action, which involved both aerial spraying and salvage cutting. In 1987, the infestation is expected to drop to 10 million hectares because of natural cycles, climatic factors and successful protection programs.

In Newfoundland, there was a decline of the spruce budworm infestation in 1985, but in 1986 there was a severe outbreak of hemlock looper with moderate to severe defoliation on some 215 000 ha mostly on the western part of the island and light defoliation on 117 000 ha.

Pest management is an important aspect of British Columbia's forest protection program. Insects and diseases destroy the equivalent of about a third of the wood harvested in the province each year. They are far more destructive than wildfires. Appropriate responses in pest management include salvaging damaged but valuable trees, sanitation clearing of infected stands, selective thinning and spacing, using biological tools (sex attractants and the pests' own viruses), or applying pesticides.

*Regeneration.* The provinces have taken measures to increase the area of denuded forest land that is reforested. In addition, dependence on natural regeneration alone continues to diminish. Left to nature, approximately one third of cutover forest land fails to regenerate adequately in terms of desired tree species and stocking. Furthermore, present logging methods, such as clear-cutting, have reduced the area on which natural regeneration can be relied upon.

All provinces have increased the funding available for reforestation from their resources and through federal-provincial cost-shared agreements and involved the forest industry in the planning and conduct of much of the reforestation on Crown land. Typically the provinces have assumed responsibility for the provision of nursery stock and reforestation of burned areas and of the backlog of lands that remain insufficiently stocked with tree cover. However, some provinces have encouraged the establishment of private nurseries and seed orchards rather than expanding provincial capacity.

Recently, the emphasis has turned from increasing the size of reforestation programs to ensuring that these investments are cost effective. To this end, many provinces have increased the use of containerized seedling stocks, instituted quality control measures for nursery stock production and tree planting, developed and adopted treatments appropriate for various site types, and initiated the development of genetically improved planting stock.

To improve forest productivity, tree improvement is being pursued by all provincial governments. The provinces with the largest planting programs carry out both research and applied tree improvement programs. The other provinces are primarily engaged in applied tree improvement and rely on the CFS and universities for research information and guidance. Co-operative tree improvement councils have been formed between industry and government in several provinces. As a result, seed collection areas and seed orchards have been established throughout Canada to facilitate the production and collection of superior tree seed for the production of planting stock.

Stand improvement projects, including thinning, spacing, cleaning and pruning, are increasingly being undertaken.

Prince Edward Island has begun a long-term, comprehensive forest renewal program, directed at private woodlots which make up 90% of the productive forest. In addition to the planting target of 2.5 million seedlings per year, forest renewal activities include plantation maintenance, thinning of natural stands, reclamation of non-productive sites, and the establishment of access roads, bridges and boundary lines.

In Nova Scotia, the reforestation program has doubled since 1980 with almost 18 million trees planted in 1985. Small private woodlots represent nearly 50% of Nova Scotia's productive woodlands, where silviculture programs have more than doubled, from 5 400 ha in 1980 to 12 700 ha in 1985.

In Newfoundland, a four-year federal-provincial agreement for forest resource development worth \$48 million was signed in 1985. In 1986, the provincial government undertook a pilot project to encourage private landowners in the southwestern part of the province to get involved in woodlot management.

Under a large-scale silviculture program in New Brunswick, a total of 29 million seedlings were planted on Crown lands in 1981. This level was to be maintained for several years.

Quebec is involved in natural forest regeneration projects and programs. A reforestation program, beginning in 1988, will provide for the planting of 300 million seedlings per year in a joint provincial and private enterprise operation. In addition, a network of plantations is being established to fill Quebec's needs for improved seed and research is continuing, particularly on the genetic improvement of softwoods and hardwoods and on the maintenance of plantations.

In Ontario, 10 nurseries, operated by the Ministry of Natural Resources, produced about 70 million bare root seedlings and 9 million container seedlings in 1986. Private contractors, hired by the Ministry, produced about 70 million container seedlings.

In Manitoba, a tree improvement program ensures seedlings are of the highest quality. About 12 million seedlings are planted annually in reforestation of Crown lands. Forest improvement by thinning, cleaning and chemical spraying removes undesirable species and encourages growth of preferred trees.

The Alberta Pine Ridge Forest Nursery has produced over 100 million seedlings since operations began in 1978. Various intensive forest management practices are employed in Alberta to improve

productivity; experimental work in wetland drainage and intensive tree improvement is underway; and improved reforestation and utilization programs are being developed.

Saskatchewan's four forest nurseries produce about 12 million seedlings a year for government and industry planting projects on forest land. The forest nurseries have three new facilities — two major pumphouses and one seedling processing/storage building.

Silviculture program spending in British Columbia amounts to nearly 50% of the provincial government's total forestry budget. The annual rate of reforestation is nearing 241 million seedlings, or five trees for every tree cut down. The new goal is to restock 75% of forest lands cleared annually, leaving 25% for natural regeneration.

**Public information and awareness.** In September 1985, an independent body of federal, provincial and territorial ministers was established as the Canadian Council of Forest Minister (CCFM). Its principal purpose is to stimulate essential consultation among forest industry, the public and private landowners, on how to address the critical issues now facing forestry in Canada. A recent Gallup Poll revealed that the general public is becoming increasingly aware of the importance of the forest industry and the need to renew the forest resource. However, this poll, and others conducted by provincial governments, suggest that a large proportion of the population remains uninformed or apathetic about the value of the forest resource and the options for its management and development for the benefit of today's and future generations. In response, the CCFM has launched a national information campaign telling Canadians about their forest sector.

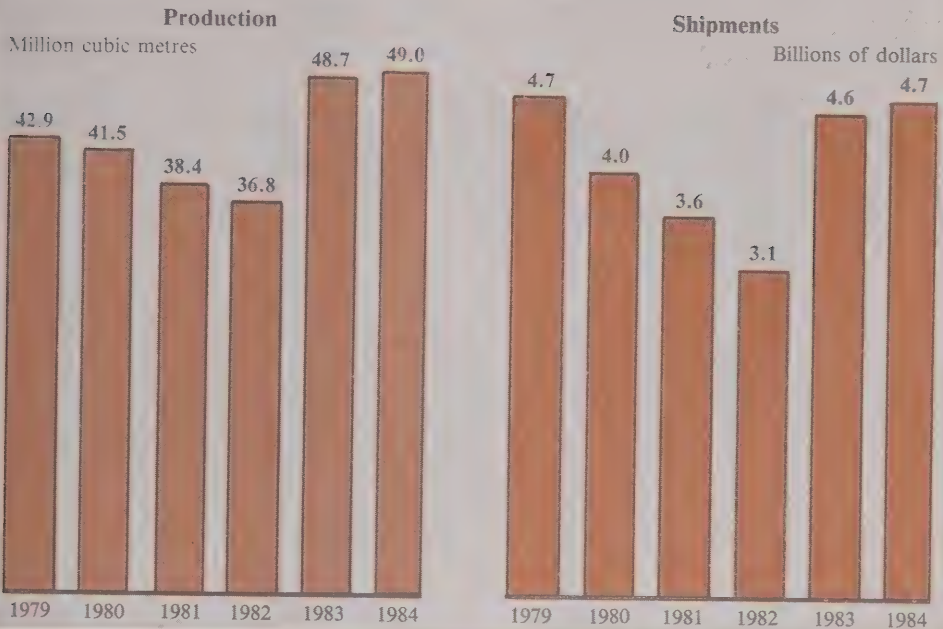
#### 8.1.4 Overview of the forest industries

The forest industry is the top Canadian contributor to our balance of trade, with a \$14.3 billion net trade surplus in 1985. The forest sector which directly and indirectly employs 7% of all Canadian workers, contributes about \$33 billion to the Canadian economy in terms of the value of shipments of goods manufactured. This represents 14% of all manufactured goods in Canada.

The forest industries can be grouped into three major categories: the logging industry, the wood industry, and the paper and allied industries.

**Logging industries.** Table 8.5 gives the volume of wood cut in Canada by province for 1980-84. The total volume decreased steadily from 155 million m<sup>3</sup> in 1980 to 144 and 127 million m<sup>3</sup> in 1981 and 1982 respectively. In 1984, the volume was 167 million m<sup>3</sup>.

Chart 8.2

**Production and shipments of lumber**

**Wood industries.** The Standard Industrial Classification subdivides the wood industries group into sawmills and planing mills, shingle mills, veneer and plywood mills, sash, door and other millwork plants, manufacturers of prefabricated buildings, manufacturers of kitchen cabinets and bathroom vanities, wooden doors and wooden window units and frames, wooden box and pallet industries, the coffin and casket industry, the wood preservation industry, particleboard, waferboard and miscellaneous wood industries.

Sawmills and planing mills, shingle mills, veneer and plywood mills and particleboard plants use mainly roundwood as a raw material and are called primary wood industries. Secondary wood industries manufacture part of the production of primary wood industries into a variety of products. However, most primary wood industries' production is not further processed.

**Sawmills and planing mill industry.** Lumber is the most important single commodity and British Columbia is the most important province in this field. A small amount of lumber is produced by establishments classified to other industries. The total value of shipments in 1984 amounted to nearly \$6.3 billion. Lumber accounted for \$4.7 billion.

**Shingle mill industry.** Most shingles and shakes in Canada are produced by British Columbia mills. Considerable quantities are produced by establishments classified to other industries and by individuals intermittently operating one or two shingle machines or producing shingles by hand, although production is not adequately recorded.

**Veneer and plywood industry.** Production of hardwood veneer is confined to the eastern provinces and production of softwood veneer almost entirely to British Columbia. Douglas fir is most commonly used because of its large diameter logs from which large sheets of clear veneer can be obtained. Of the hardwoods, birch is the most important species. Although most raw materials are of Canadian origin, some decorative woods are imported.

Most softwood veneers are further manufactured into plywood by Canadian mills. Some hardwood veneers are converted into plywood or shipped to industries, such as the furniture industry, for veneering. A significant portion is exported.

**Paper and allied industries.** The Standard Industrial Classification subdivides the paper and allied industries group into the pulp and paper industry, asphalt roofing manufacturers, paper box and bag manufacturers, and other paper converters.



Chart 8.3

**Market value of all fishery products**

Millions of dollars



*The pulp and paper industry* is the most economically important of this group. Part of its production is consumed in Canada or serves as raw material for paper-using or secondary paper and allied industries. A great part of it is exported, particularly newsprint and various types of pulp, most of it to the United States. Some plants included in the pulp and paper industry classification convert basic paper and paperboard into more highly manufactured papers, paper goods and boards. Their output is only a small part of Canada's total production of converted papers and boards. Table 8.12 provides figures for exports of pulp and newsprint from 1980 to the end of 1985.

*Asphalt roofing manufacturers* produce composition roofing and sheathing, consisting of paper felt saturated with asphalt or tar and, in some cases, coated with a mineral surfacing. Total shipments in 1984 were valued at \$354.2 million.

*Paper box and bag industries* include manufacturers of folding cartons and set-up boxes, of corrugated boxes and of paper bags. Total shipments in 1984 amounted respectively to \$664.4 million, \$1,304.9 million and \$268.6 million.

*Other paper converters* produce such paper products as envelopes, waxed paper, clay-coated and

enamelled paper and board, aluminum foil laminated with paper or board, paper cups and food trays, facial tissues, sanitary napkins, paper towelling and napkins and toilet paper.

## 8.2 Fisheries

After Canada extended its fishing zones to 200 nautical miles in January 1977, bilateral agreements were concluded with other countries providing for the continuation of their fisheries limited to stocks surplus to Canada's harvesting capacity. Negotiations were also undertaken to revise multilateral agreements which had applied previously. A new international organization, the Northwest Atlantic Fisheries Organization (NAFO) was established to regulate fishing outside Canada's 200-mile limit; recognition of Canada's special interest in the area beyond and immediately adjacent to the 200-mile limit is provided in the NAFO convention. Canada also co-operates with other countries to conserve high seas fisheries resources in other areas, through research and international agreements. Initiatives have included a new emphasis on improving access to foreign markets to realize the full potential arising from the conservation and rational management of fish stocks.



### 8.2.1 Federal government activities

The federal government has full legislative jurisdiction over the coastal and inland fisheries of Canada. All laws for the protection, conservation and development of these fisheries resources are enacted by Parliament. Management of fisheries is conducted co-operatively with the provincial governments; some of them have been delegated certain administrative responsibilities.

The federal Department of Fisheries and Oceans controls marine and freshwater fisheries in Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Yukon and Northwest Territories. The federal government inspects fish and fishery products produced for sale outside provincial boundaries throughout Canada. In the national parks, fisheries are managed by the Canadian Wildlife Service.

The Department of Fisheries and Oceans conserves, develops and generally regulates the nation's coastal and freshwater fisheries through a broad range of responsibilities: management of Canada's ocean and some inland fisheries; fisheries and oceanographic research contributing to optimum use of renewable aquatic resources and marine and fresh waters; hydrographic surveying and charting of navigable coastal and inland waters; administration of small craft harbours; environmental impact studies affecting coastal and inland waters; and research in support of international agreements relating to fisheries management and marine environmental quality.

Regional headquarters for fisheries management and ocean science and surveys are in Vancouver, Winnipeg, Quebec City, Moncton, Halifax and St. John's. There are research institutes and laboratories at centres across Canada, notably at Patricia Bay, BC, Burlington, Ont., and Dartmouth, NS.

Close contact with fishermen, the fishing industry and provincial authorities is maintained through the regional offices. Co-ordination and discussion between federal and provincial fisheries managers are facilitated through federal-provincial committees.

The Fisheries Prices Support Board, the Canadian Saltfish Corporation and the Freshwater Fish Marketing Corporation work closely with the Department.

**International fisheries.** Many injurious effects on aquatic resources are results of historical practice, insufficient knowledge, multiple uses of water, social and economic conditions, and national and international competition. Problems under national control are corrected as conditions warrant but many resources shared with other nations must be managed jointly.

Canada co-operates with many nations to obtain scientific data and formulate policies for developing and conserving fisheries through membership in 10 international fisheries commissions and an international council. These international organizations are set up under formal conventions. Canadian representatives appointed by order-in-council include officials of the Department of Fisheries and Oceans and members of the fishing industry.

Canada is a member of the fisheries committee of the Food and Agriculture Organization of the United Nations and of the Codex Alimentarius Commission, concerned with world food quality standards.

**Acid rain** has become a matter of increasing interest and debate. Numerous studies have demonstrated that acid rain is adversely affecting many lakes and rivers. There are growing indications that it may be harming crops and forests as well. A number of strategies have been proposed. The cost and desirability of control is being debated in the United States and Canada, raising questions about the causes, effects and controllability of acid rain.

Broad dispersion of acid rain over large parts of Europe and North America represents a major man-made disturbance of the environment. Acid rain has led to severe degradation of many aquatic ecosystems in the United States, Canada, the United Kingdom, and Scandinavia. Many thousands of lakes have been affected. Waters and soils over extensive areas of North America are susceptible to acidification. There has been an increase in both acidity and toxic substances in many lakes and rivers over the past several decades, particularly in New England and southeastern Canada.

Conditions that lead to the formation and long-range transport of acid rain are reasonably well known. Sulphur dioxide and nitrogen oxides emissions are transformed in the atmosphere to sulphuric and nitric acids, transported great distances, and deposited on vegetation, soils and surface waters. In the United States and Canada the sources of acid rain are entirely man-made. There is much circumstantial evidence relating power plant emissions to acid rain.

Acid rain has destroyed many species of fish and their prey. It has also caused toxic trace metals to reach concentrations in surface and ground waters that are undesirable for human consumption. Fish taken from acid waters show high concentrations of mercury and other heavy metals. Only the control of emissions can significantly reduce the rate of deterioration of sensitive freshwater ecosystems.

### 8.2.2 Provincial activities

In the early 1980s, the fishing industry experienced a severe cost-price squeeze as a result of a weak Canadian economy, higher fuel costs, lower consumer demand and stiffer competition in the major export markets. However, in 1984, the industry started to experience an upswing and, in the last two years, there has been a dramatic improvement due to increased catches, higher-quality fish and improved demand for Canadian products abroad.

Commercial fish landings in 1985 reached 1.4 million tonnes, 11% higher than in 1984 and equal to the previous record set in 1981.

Although Newfoundland was the province with the highest number of fishermen in 1985, just over 26,560, it had only the third highest landed value of fish at about \$164.1 million. British Columbia was second in the number of fishermen, 18,580, but ranked first in the landed value of fish at \$376.7 million. Although Nova Scotia had only 13,960 fishermen, they produced the second highest landed value of fish at \$312.7 million.

Newfoundland had the highest number of workers in fish processing plants with 8,637 employees in 1984; Nova Scotia was second with 5,793.

There is a close liaison between the provincial departments responsible for fisheries and the federal Department of Fisheries and Oceans. In Ontario, fisheries are managed by the provincial government. In Quebec, the provincial government administers fisheries for freshwater and diadromous species (fish that migrate between salt and fresh water), while marine fisheries are managed by the federal government. Fisheries management in Alberta is broken down into the following areas: sportfish, commercial fish, domestic fisheries, and fish culture and stocking. In British Columbia, the fisheries for marine species and anadromous salmon (salmon that migrate between the sea and fresh water) are managed by the federal department, but the provincial government manages freshwater fisheries.

Recreational fishing is gradually becoming more significant. Licences for sport fishing are usually distributed by the provincial or territorial governments which retain revenues collected.

In British Columbia, the annual stocking of lakes is a major function of the six provincial hatcheries. In 1985, 545 lakes and streams were stocked with 8.1 million rainbow, cutthroat, steelhead, brook trout and kokanee.

The New Brunswick commercial fishery employs over 6,000 fishermen. In 1986, preliminary landings by the 2,814 vessels amounted to 121 514 tonnes valued at \$88.4 million, representing

approximately 10% of the Atlantic catch. Approximately 14,000 workers are employed in 150 fish-processing companies in the province. The 1986 processing industry figures are expected to reach over \$350 million. About 125 various products are exported to 50 countries. In 1985, export figures amounted to \$260 million, a 22% increase over the previous year. Exports of fish products from New Brunswick represent 14% of the Canadian fish product exports. Sport fishing of salmon and tuna is also popular.

The provincial fisheries department in Prince Edward Island is focusing programs on enhanced quality groundfish production, taking advantage of fresh market outlets for their day boat fishery. Emphasis is also placed on value added production in fish processing and highly successful culture techniques for blue mussels and oysters. In cooperation with Fisheries and Oceans Canada, sport fishing opportunities for trout and salmon are provided through selected stocking initiatives and habitat protection and restoration.

Quebec's inshore and deep-sea fisheries provide seasonal employment for approximately 6,700 commercial fishermen and 4,000 workers. Production centres and landing points of these fisheries have been modernized with essential unloading and storage facilities. Inland sport and commercial fishing are being improved by fish culture programs. Many species are being reared for the restocking of lakes and rivers.

Ontario conducts studies on the improvement of stocking strategies in terms of species, size, rate and time of year to increase the survival of fish and returns to the angler. Research programs are directed toward specific fisheries management problems in the Great Lakes and smaller inland waters. Quantities of hatchery-reared coho and chinook salmon are released each year into the western basin of Lake Ontario. This provides good fishing during the late summer and fall.

In Saskatchewan, a portion of angling licence revenue is allocated to a special fund for fishery projects including rearing ponds, fishways and lake rehabilitation.

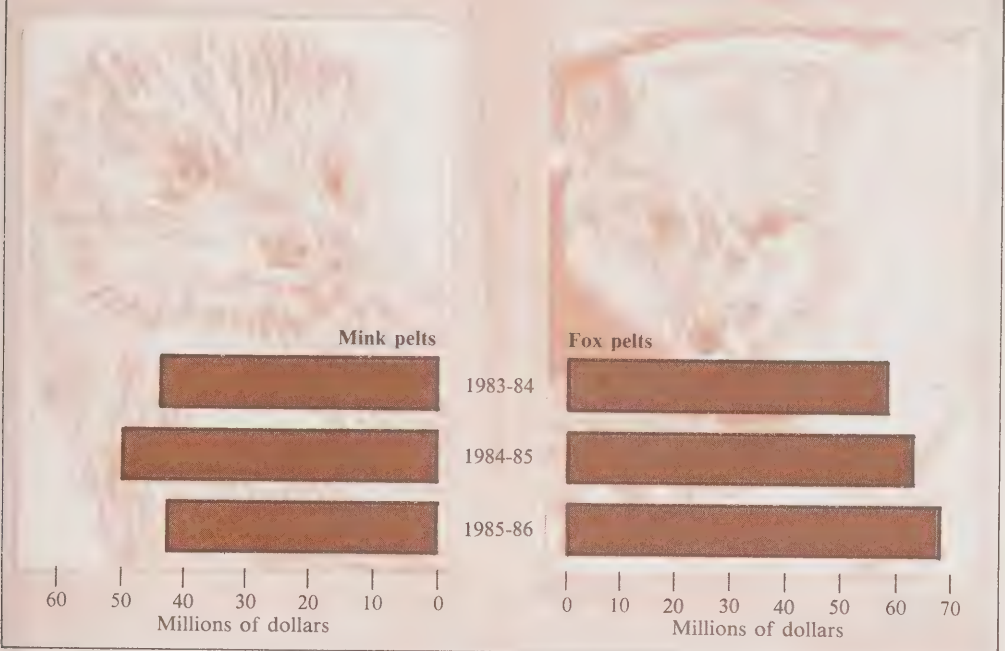
The inland provinces especially make use of hatcheries to restock the lakes and rivers.

British Columbia conducts research on shellfish, principally oysters, on salmonids and on marine plants.

### 8.3 The fur industry

The value of the 1984-85 Canadian production of raw furs amounted to \$105.5 million, made up of \$49 million (47%) from wildlife pelts and \$56 million (53%) from farm pelts. The value of pelts was up 15.2% from the 1983-84 level of \$91 million

Chart 8.4

**Pelts produced on fur farms**

with increases in value of wildlife and farm fur harvests of 17.7% and 13.0%, respectively. Production was down from 1983-84 but average values were mostly higher, especially for lynx and wildcat. Average values for all bear varieties (including white bear) were below the previous year.

**The Atlantic seal hunt.** Harvesting seals is an important source of income in many areas along the Atlantic Coast. It involves residents of small communities scattered along the shores of Newfoundland and Labrador, the Îles de la Madeleine, the Quebec north shore and the Arctic. Its significance is greater than the relatively small dollar returns might suggest, since there are few available income-earning activities during the seal hunt period.

The harp seal is the main species involved. About 2 million of these seals now inhabit the northwest Atlantic. Pups of both harp and hooded seals are caught primarily by sealers in large vessels; some are harvested by landmen in small boats or on foot from coastal areas. Between 1978 and 1982, an annual average of about 10,000 pups and 2,600 adults were taken by Canadian and Norwegian sealers, and about 3,800 seals were harvested at Greenland.

In the early years of the hunt, the main product was oil from the blubber but in recent years the greatest part of the gross return in the commercial hunt has come from the skins. Most seal meat is either used by the sealers themselves or is sold fresh, frozen or canned.

Following a quota imposed on seal hunting in the early 1970s, the population appeared to have increased slightly. At present, hunting has been substantially reduced and the population is expected to increase more rapidly.

**Fur farming.** Mink are raised in all provinces. In 1985-86 the principal producers were Ontario, Nova Scotia, Quebec and British Columbia (Table 8.22).

In value of production, mink is by far the most important species raised on fur farms. Mink pelt production grew from about 911,000 in 1976 to 1.4 million in 1985. The peak year was 1967 when the output was nearly 2 million pelts. Because of lower returns and higher production costs, the number of mink farms decreased from 1,359 in 1967 to 596 in 1985. Average value of mink pelts in 1985 was \$29.91, down from \$35.70 in 1984, and the 1979 record high of \$44.08.

Entry into the mink business on a scale that would hold the promise of some return on invest-



ment within a reasonable time involves a high outlay of capital; this is a limiting factor in attracting newcomers to the industry.

In fox farming, pelt production increased by 37% to 53,998 in 1985 from 39,424 in 1984. The number of fox farms has been steadily increasing from 39 in 1971 to 938 in 1985. The increase in production continued a trend begun in the mid-1960s. Returns for ranched fox pelts rose sharply during the 1970s as the market for all long-haired furs improved. Value per pelt reached a high of \$364.42 in 1978 but declined to \$126.68 in 1985.

**Fur marketing.** In 1985-86 exports of raw furs amounted to \$97.1 million, down from the 1984-85 value of \$101.7 million and up slightly from the 1983-84 value of \$96.8 million. Imports for 1985-86 totalled \$179.4 million, down from the total of \$200.4 million in 1984-85 and \$33.8 million more than the 1983-84 total of \$145.6 million.

The export of fur fashion garments on an important scale is a fairly new development on the Canadian fur scene. Historically, Canadian exports of furs have consisted mainly of undressed pelts from fur farms and the trapline. There are fairly definite limits to which this type of export can be developed. The production of wildlife pelts is relatively limited; it showed a decrease during 1984-85 of 7.3% below 1983-84.

In the fur manufacturing industry no such limits apply. Other factors, however, are present, principally import tariffs and competition from fur manufacturers in the importing countries. A high degree of efficiency in design and manufacture is required by Canada to compete, and there is a growing export group among Canadian fur manufacturers which is extending the horizons of this formerly domestic industry.

## 8.4 Wildlife

Original inhabitants of what is now Canada depended on wildlife for food and clothing and some still do in remote areas. Europeans brought development of the fur trade which to a large extent guided the course of exploration and settlement. When the country was being developed, a number of mammals and birds became seriously depleted or extinct. As settlement progressed, wildlife habitat was reduced by cutting and burning forests, polluting streams, by industrial and urban development, draining wetlands and building dams.

Today the arctic and alpine tundra, a major vegetational region, has begun to show serious effects of man-made changes. The adjacent sub-arctic and sub-alpine non-commercial forests have been affected principally by human travel and an increase in the number of forest fires. Arable lands,

originally forest or grassland, have completely changed but in some cases became more suitable for some forms of wildlife than the original wilderness.

Canada's varied and abundant wildlife includes most of the world's stock of woodland caribou, mountain sheep, wolves, grizzly bears and wolverines. Many factors cause fluctuations in wildlife numbers, and hunting seasons and bag limits are based to a great extent on annual population surveys and other scientific data.

Early attempts at wildlife conservation began in 1885, when Rocky Mountains Park (now Banff National Park) in Alberta was preserved in its natural state. In 1887 the continent's first bird sanctuary was started at Last Mountain Lake in Saskatchewan. In 1893 when wood bison faced extinction, laws were passed to protect them. In 1907 a nucleus herd of plains bison was established at Wainwright, Alta.

As a natural resource, wildlife in each province comes under the jurisdiction of the provincial government. The federal government is responsible for the protection and management of migratory birds and for wildlife on federal lands.

### 8.4.1 The Canadian Wildlife Service

The Canadian Wildlife Service (CWS) began as an agency to administer the Migratory Birds Convention Act (1917). It was expanded in 1947 to meet the need for scientific research in wildlife management and is now part of the environmental conservation service of Environment Canada.

CWS conducts research in Northwest Territories and Yukon on polar bear populations and is conducting long-term studies of caribou in co-operative programs with the NWT wildlife service.

The North American Waterfowl Management Plan, signed by the Minister of the Environment and the US Secretary of the Interior in 1986, focuses on the problem of maintaining and restoring waterfowl habitat on the continent. A joint venture is proposed to restore 1.5 million hectares of duck breeding habitat on the Canadian Prairies at a cost of \$1 billion over the next 15 years. The cost of this project will be shared, with 75% of the funds coming from American sources. Nesting and migration habitat in the Great Lakes-St. Lawrence lowlands will also be protected at a cost of \$20 million.

A convention on international trade in endangered species of wild fauna and flora was signed by Canada in July 1974, with the CWS designated the scientific and management authority for Canada. The Canada Wildlife Act (1973) provides the federal government and the CWS a legislative basis for joint federal-provincial management pro-



grams. CWS has initiated a rare and endangered species program. Continuing studies on the wood bison, whooping crane and peregrine falcon are to be augmented with new projects on other species. An international agreement on the conservation of polar bears came into effect in 1976. Canada was the first of five signatories to ratify it. As administrator of the Migratory Birds Convention Act the CWS, in consultation with provincial wildlife agencies, recommends annual revisions of the regulations on open seasons, bag limits and hunting practices. The RCMP with CWS and provincial co-operation enforces the act and regulations.

Under a national program begun by CWS, more than 40 national wildlife areas exist across Canada and more are planned. A number of co-operative wildlife areas are managed jointly with the provinces. The land, its vegetation and the wildlife it supports are the main concerns. Over 80 key nesting areas for migratory birds, many privately owned, have been declared sanctuaries under the migratory bird sanctuary regulations; in these areas hunting is prohibited.

CWS conducts surveys of waterfowl hunters to obtain estimates of species taken and the kill of migratory game birds, of the national goose harvest, of crop damage and of waterfowl populations and habitat conditions in Western Canada, and a program to reduce hazards caused by birds flying near airports. Bird-banding provides information on migration and biology of birds, and is useful in waterfowl management. CWS headquarters in Ottawa keeps continental banding records and controls activities of banders.

Attention is given to species greatly reduced in number or in danger of extinction. For example, Canada and the United States signed a Memorandum of Understanding in April 1985 to ensure international co-ordination and co-operation in efforts to restore populations of the whooping crane. Canadian and US program co-ordinators were appointed and are members of recovery teams in both countries. Canadian and US recovery plans have been completed and approved. The world population of whooping cranes in the wild and captivity now numbers 180, up from the 45 which existed in 1963 when the present program began. The population breeding at Wood Buffalo National Park in the Northwest Territories now stands at 111. In 1986, 21 chicks successfully migrated to Texas, a number equal to the 21 birds that existed in the migratory flock in 1941.

Research continues on the effects of toxic chemicals on wildlife and the relation between chemical contamination of the lower Great Lakes

and the breeding success of fish-eating birds, the last under a Canada-United States Great Lakes water quality agreement. A co-operative program began with a number of Latin American countries to monitor and improve the wintering habitat of migratory birds.

Research continues on the impacts of long-range air pollution on wildlife designed to provide an understanding of the mechanisms and magnitude of the effects of acid precipitation on wildlife.

#### 8.4.2 Provincial wildlife

A major function of provincial wildlife management is to protect wildlife from endangerment or extinction and to preserve the wildlife habitat, to maintain wildlife populations at optimal levels and to foster best use of the habitat by appropriate species. Provincial authorities promote public attitudes consistent with wildlife resources and management protection strategies, and regulate the use of wildlife by setting limits and closed seasons for hunting and fishing.

Inventories are taken by the provinces, as required, to monitor the population of game and non-game species. Education programs for hunters, trappers and fishermen encourage the wise use of resources.

The main goals of wildlife conservation in Newfoundland and Labrador are: to maintain the ecosystems upon which wildlife and people depend and to do so recognizing the values of the diversity and abundance of wildlife species and populations; and to provide for the humane and sustainable use of wildlife. The major species for which there are active research or management programs include: moose, caribou, black bear, lynx, pine marten, ptarmigan, piping plover, bald eagle and peregrine falcon. Other major game species are snowshoe and arctic hare, ruffed and spruce grouse. Major furbearers include beaver, red and arctic fox, lynx, pine marten, mink, muskrat, ermine, otter and wolf. Recent surveys indicate that the economic value of wildlife-related activities in the province is over \$73 million annually.

In Prince Edward Island, programs and activities in wildlife management are directed at the conservation and protection of fish and wildlife species for the benefit of the public. A recently signed 5-year agreement between the province and Wildlife Habitat Canada will result in the integrated management of a watershed to the benefit of fish and wildlife resources.

Emphasis in Nova Scotia is placed on maintaining and improving habitat for about 300 species of wildlife. Appropriate protective measures are being integrated into forest management planning to ensure protection of significant wildlife habitats

and the maintenance of the forest ecosystems. In addition, wetlands management efforts have recently been expanded.

In New Brunswick, principal game species are: deer, bear, moose, grouse, waterfowl, hare and woodcock. Trappers take about \$1 million worth of furbearers annually: beaver, fox, bobcat, muskrat and others. Angling is popular, particularly for salmon, trout and bass.

Objectives of wildlife management in Quebec are to maintain and improve wildlife through ecological balance and sound management of public hunting, fishing and trapping grounds. Research is carried out on the dynamics and habitats of the various species of wildlife, and citizen participation is encouraged in the conservation of wildlife and its environment.

In central and northwestern Ontario the deer herd had declined, but due to a selective harvest system which controls the number of does and fawns taken annually plus favourable winter conditions, the herds have increased in most areas to desired levels. The fur management program continues to be based on an area-specific licensing system of trappers, coupled with seasons determined by the primeness of pelts and quotas on the number of animals which may be taken. The moose resource is being managed by a selective harvest system which controls the number of adult animals taken. Hunter and trapper education courses must be taken by all prospective hunters and trappers. An important new initiative is a Community Wildlife Involvement Program (CWIP) which provides funds to groups and individuals for projects to improve wildlife habitat and recreational opportunities.

In Manitoba, wildlife management initiatives involve: wildlife population monitoring; recreational hunting; wild fur trapping; habitat protection and development; wildlife conservation education; and the conservation, preservation and reintroduction of rare and endangered species. The province administers sport hunting seasons for six species of big game, the most important being white-tailed deer, moose and elk, and seven types of upland game birds. The majority of the harvest is ruffed grouse and sharp-tailed grouse. Waterfowl hunting centers primarily on mallards, Canada geese and snow geese. Manitoba has recently reintroduced wood bison to the province and has declared the great gray owl as the provincial bird emblem.

In Saskatchewan, portions of hunting and fishing licence revenues are channelled into a fund for the purchase of critical wildlife habitat and habitat development projects. Designated critical wildlife areas on Crown land are protected from

alteration or sale; emphasis is placed on prevention of damage by wildlife to private property and agricultural produce; and stiffer penalties for wildlife offences such as poaching and night hunting have recently been provided.

Wildlife in Alberta includes bird game such as pheasant, Hungarian partridge, ptarmigan and ruffed, spruce, blue, sage and sharp-tailed grouse, as well as species of big game; furbearers; and non-game which includes endangered, threatened and vulnerable species.

The diverse wildlife in British Columbia includes deer, black bear, wolf, coyote, raccoon, caribou, cougar, mountain sheep, mountain goat, grizzly bear, skunk, fox, wolverine, lynx and bobcat. Ducks and snow geese are among the game birds. Rare and endangered species which may not be killed at any time are Vancouver Island marmot, sea otter, white pelican and burrowing owl. Protected species are yellow badger, mountain cottontail and white-tailed jack-rabbit.

#### 8.4.3 Territorial wildlife

**In Yukon** judicious use of big-game species, upland game birds and sport fish is promoted for residents and non-residents. The Yukon wildlife branch licenses and regulates trapping of fur-bearing animals and activities of outfitters and guides. To increase knowledge about wildlife species and provide the basis for management, it conducts and supports biological research and public educational programs.

**Northwest Territories.** The Northwest Territories Department of Renewable Resources provides opportunities for native peoples to follow their traditional pursuits of hunting, trapping and fishing. Included are trappers' incentive grants (a fur subsidy program based on a percentage of the season's harvest), a fur marketing service, and an outpost camp program to help groups who wish to move back to the land and live off the natural resources available through hunting and trapping.

Wildlife management is carried out mainly by control and monitoring of harvest. Quotas are allocated by management zones on a biological basis. Studies are conducted primarily to determine the abundance, productivity and seasonal distribution of large mammals, including the polar bear.

The department is responsible for administration of sports fishing licences, and resident and non-resident hunting licences. Under permit from Fisheries and Oceans Canada, Renewable Resource officers monitor commercial fisheries and the testing of lakes and rivers to determine the viability of commercial operations to supply local domestic markets.

**Sources**

- 8.1 - 8.1.4 Communications, Canadian Forestry Service, Agriculture Canada; provincial government departments.
- 8.2 - 8.2.1 Communications Directorate, Department of Fisheries and Oceans.
- 8.2.2 The respective provincial government departments.
- 8.3 Agriculture and Natural Resources Division, Statistics Canada; Communications Directorate, Department of Fisheries and Oceans.
- 8.4 - 8.4.1 Canadian Wildlife Service, Department of the Environment.
- 8.4.2 The respective provincial government departments.
- 8.4.3 The respective territorial government departments.

## TABLES

.. not available  
 ... not appropriate or not applicable  
 — nil or zero  
 -- too small to be expressed

e estimate  
 p preliminary  
 r revised  
 certain tables may not add due to rounding

### 8.1 Canada's forest inventory, 1981

Province or territory	Inventoried forest land ('000 km <sup>2</sup> )					Volume <sup>3</sup> ('000 000 m <sup>3</sup> )		
	Inventoried forest land <sup>1</sup>	Productive forest land <sup>2</sup>			Total	Softwoods	Hardwoods	Total
		Crown provincial	Crown federal	Private and others				
Newfoundland	142	79	1	4	85	429	34	463
Prince Edward Island	3	—	—	3	3	22	11	33
Nova Scotia	41	6	—	22	29	137	65	202
New Brunswick	65	29	2	31	62	338	178	516
Quebec	624	469	2	63	533	3 089	1 044	4 133
Ontario	432	331	6	39	377	2 075	1 123	3 198
Manitoba	240	132	3	4	140	439	196	635
Saskatchewan	123	84	5	—	89	293	191	484
Alberta	331	199	17	—	216	781	657	1 438
British Columbia	566	437	5	16	458	7 438	404	7 842
Yukon	242	—	67	—	67	214	40	254
Northwest Territories	615	—	143	—	143	315	131	446
Total	3 425	1 767	252	183	2 202	15 570	4 074	19 644

<sup>1</sup> Land primarily intended for growing, or currently supporting, forest.

<sup>2</sup> Productive forest land available for growing and harvesting forest crops. Excludes reserved forest land by law not available, as in national parks, some provincial parks, game refuges, water conservation areas, nature preserves and military areas.

<sup>3</sup> Merchantable volume on production forest land.

### 8.2 Forest utilization, 10-year average, 1975-1984

Item	Usable wood '000 m <sup>3</sup>	Percentage of total utilization
Products utilized		
Logs and bolts <sup>1</sup>		
Domestic use	102 402	68.5
Exported	1 460	1.0
Pulpwood		
Domestic use	38 212	25.6
Exported	657	0.4
Fuelwood (incl. wood for charcoal)	5 326	3.5
Other products	1 421	1.0
Total utilization	149 478	100.0

<sup>1</sup> Includes some wood used in pulp manufacture.



### 8.3 Forest fire losses, 1983-85

Province or territory	1983		1984		1985	
	Fires No.	Area burned ha	Fires No.	Area burned ha	Fires No.	Area burned ha
Newfoundland	138	16,792	101	7,743	289	153,115
Prince Edward Island	55	321	38	202	52	181
Nova Scotia	332	449	446	594	583	1,077
New Brunswick	456	1,852	395	580	851	4,144
Quebec	1,653	238,903	683	3,082	880	2,697
Ontario	2,244	443,655	1,240	297,564	887	1,007
Manitoba	535	99,153	692	130,189	346	11,823
Saskatchewan	437	52,172	549	13,036	520	110,128
Alberta	756	2,818	1,370	79,966	939	12,920
British Columbia	1,705	67,365	3,063	19,908	3,604	234,647
Yukon	198	43,006	168	19,895	110	15,131
Northwest Territories	337	226,841	311	41,074	150	204,745
National parks	84	848	161	21,486	146	5,645
Total	8,930	1,194,175	9,217	635,318	9,357	757,260

### 8.4 Estimated average annual depletion (1977-81), caused by insects and diseases (million cubic metres)

Cause	Depletion	Cause	Depletion
<b>Insects</b>		<b>Diseases</b>	
Spruce budworms		Dwarf mistletoes	
Mortality	34.8	Growth reduction	3.8
Growth reduction	9.7	Hypoxylon canker	
Mountain pine beetle		Mortality	11.2
Mortality	5.1	Decays	
Spruce bark beetle		Wood destruction	25.0
Mortality	3.5	Miscellaneous diseases	
Other bark beetles		Mortality	4.9
Mortality	0.3	Total, diseases	44.9
Aspen defoliators		Total, insects and diseases	107.4
Growth reduction	8.0		
Miscellaneous defoliators			
Mortality	0.3		
Growth reduction	0.8		
Total, insects	62.5		

### 8.5 Volume of wood cut, by province (thousand cubic metres)

Province or territory	1980	1981	1982	1983	1984
Newfoundland	2 795	2 568	2 379	2 429	2 889
Prince Edward Island	278	333	275	294	413
Nova Scotia	4 544	3 986	3 001	3 621	3 559
New Brunswick	8 387	7 795	6 320	7 442	8 378
Quebec	31 687	34 234	29 133	36 288	36 519
Ontario	21 322	22 808	19 778	23 736	28 130
Manitoba	2 335	1 803	1 498	1 520	1 698
Saskatchewan	3 330	3 555	2 526	2 612	2 726
Alberta	5 933	6 586	5 714	7 344	8 457
British Columbia	74 654	60 780	56 231	71 443	74 556
Yukon and Northwest Territories	115	124	161	192	177
Canada	155 380	144 572	127 016	156 921	167 502

**8.6 Volume of wood cut, by type of product (thousand cubic metres)**

Type of product	1980	1981	1982	1983	1984
Logs and bolts <sup>1</sup>	109 957	96 318	88 869	111 269	117 254
Pulpwood	38 783	41 204	31 084	38 090	42 051
Fuelwood	4 731	5 488	5 673	6 197	6 635
Miscellaneous roundwood <sup>2</sup>	1 909	1 562	1 390	1 365	1 562
Total	155 380	144 572	127 016	156 921	167 502

<sup>1</sup> Includes poles and piling.<sup>2</sup> Includes round mining timber and fence posts.**8.7 Lumber production, shipments and value of all shipments of the sawmill and planing mill industry, by province<sup>1</sup>**

Year and province or territory	Lumber			Value of shipments <sup>2</sup> of good of own manufacture \$'000
	Production m <sup>3</sup>	Quantity shipped <sup>1</sup> m <sup>3</sup>	Value of shipments <sup>2</sup> \$'000	
1982				
Newfoundland	69 612	3	3	3
Prince Edward Island	28 317	3	3	3
Nova Scotia	360 613	237 616	28,570	41,005
New Brunswick	708 110	619 412	57,848	110,376
Quebec	6 516 857	6 161 836	501,259	871,083
Ontario	3 243 300	2 851 959	274,339	454,198
Manitoba	252 345	163 874	13,613	23,989
Saskatchewan	457 694	387 082	26,654	36,179
Alberta	1 766 881	1 701 373	113,171	146,721
British Columbia	23 406 000	22 954 071	2,088,987	2,695,406
Yukon and Northwest Territories	22 056	—	—	1,606
Canada	36 831 785	35 098 112	3,106,160	4,386,852
1983				
Newfoundland	87 782	3	3	10,002
Prince Edward Island	37 756	3	3	3
Nova Scotia	423 011	266 952	35,162	55,343
New Brunswick	1 189 470	914 677	91,881	166,942
Quebec	8 840 677	7 963 016	741,323	1,166,520
Ontario	4 116 821	3 502 794	377,378	597,658
Manitoba	212 282	152 923	15,780	24,816
Saskatchewan	456 621	441 887	40,431	50,025
Alberta	2 524 005	2 348 292	201,305	244,401
British Columbia	30 777 959	29 167 075	3,092,385	3,672,760
Yukon and Northwest Territories	—	—	—	—
Canada	48 666 384	44 771 850	4,597,771	5,991,316
1984				
Newfoundland	89 212	3	3	9,174
Prince Edward Island	37 756	3	3	1,788
Nova Scotia	460 314	280 464	39,986	60,234
New Brunswick	1 066 323	997 548	99,198	185,351
Quebec	8 852 128	8 413 907	827,781	1,328,637
Ontario	4 558 587	3 941 761	432,529	669,101
Manitoba	137 592	134 722	14,918	23,558
Saskatchewan	519 921	480 943	41,641	51,937
Alberta	2 405 457	2 683 004	220,966	269,376
British Columbia	30 861 348	29 858 746	3,056,786	3,665,698
Yukon and Northwest Territories	—	—	—	—
Canada	48 988 638	46 801 846	4,735,555	6,264,855

<sup>1</sup> Quantity figures are from establishments reporting on detailed forms only.<sup>2</sup> Shipment figures contain some duplication because sales of lumber from one sawmill to another are reported as shipments by both establishments.<sup>3</sup> Confidential.

**8.8 Lumber shipments<sup>1</sup> of the sawmill and planing mill industry, by species**

Kind of wood	1981		1982	
	Quantity m <sup>3</sup>	Value \$'000	Quantity m <sup>3</sup>	Value \$'000
Spruce and balsam fir	22 139 269	1,787,120	20 244 911	1,508,100
Douglas fir	2 579 664	265,638	2 236 792	206,873
Hemlock	5 091 196	532,027	4 402 409	478,272
Cedar (red and white)	2 721 968	411,684	2 470 099	387,494
White and red pine	631 631	93,174	594 172	85,104
Jack pine and lodgepole pine	4 758 792	358,875	3 916 066	280,701
Maple	307 471	42,229	198 867	26,083
Yellow birch	159 332	21,852	97 018	13,929
Other	790 610	112,761	937 778	119,604
Total	39 179 933	3,623,360 <sup>r</sup>	35 098 112	3,106,160
	1983		1984	
	Quantity m <sup>3</sup>	Value \$'000	Quantity m <sup>3</sup>	Value \$'000
Spruce and balsam fir	27 101 431	2,416,492	17 558 902	1,565,211
Douglas fir	2 695 789	269,919	2 806 648	285,694
Hemlock	5 360 364	628,291	5 369 921	588,941
Cedar (red and white)	2 976 365	577,490	3 078 478	587,608
White and red pine	709 908	107,464	746 038	123,780
Jack pine and lodgepole pine	4 485 487	400,558	2 185 390	198,959
Maple	210 993	31,891	228 231	36,251
Yellow birch	148 529	24,910	137 754	24,167
Other	1 082 984	140,756	14 690 484	1,324,944
Total	44 771 850	4,597,771	46 801 846	4,735,555

<sup>1</sup> See footnote 1, Table 8.6.**8.9 Veneer and plywood shipments<sup>1</sup>, by type, all industries**

Type	1981		1982	
	Quantity m <sup>3</sup>	Value \$'000	Quantity m <sup>3</sup>	Value \$'000
Veneer				
Softwoods	616 409 <sub>2</sub>	67,376 <sub>2</sub>	472 913 <sub>2</sub>	50,589 <sub>2</sub>
Hardwoods				
Softwood plywood	1 977 869	491,934	1 646 481	350,263
Hardwood plywood	197 904	90,740	162 507	73,293
	1983		1984	
	Quantity m <sup>3</sup>	Value \$'000	Quantity m <sup>3</sup>	Value \$'000
Veneer				
Softwoods	700 925 <sub>2</sub>	67,303 <sub>2</sub>	<sup>2</sup>	<sup>2</sup>
Hardwoods			173 879	120,776
Softwood plywood	<sup>2</sup>	<sup>2</sup>	1 650 540	370,349
Hardwood plywood	200 374	97,855	171 333	105,098

<sup>1</sup> Quantity figures are from establishments reporting on detailed forms only.<sup>2</sup> Confidential.

## 8.10 Pulp shipments and production

Item	1981		1982	
	Quantity '000 t	Value \$'000	Quantity '000 t	Value \$'000
Mill shipments of pulp <sup>1</sup>	7 836	4,005,942	7 012	3,383,915
Groundwood pulp	327	86,806	280	73,556
Chemical pulps	7 509	3,918,686	6 732	3,310,359
Pulp production <sup>2</sup>	20 572	..	18 514	..
Quebec	6 858	..	6 283	..
Ontario	4 394	..	3 753	..
British Columbia	4 995	..	4 938	..
Other provinces	4 325	..	3 540	..
	1983		1984	
	Quantity '000 t	Value \$'000	Quantity '000 t	Value \$'000
Mill shipments of pulp <sup>1</sup>	8 223	3,519,145	8 372	4,308,786
Groundwood pulp	477	128,196	653	201,101
Chemical pulps	7 746	3,390,949	7 719	4,107,685
Pulp production <sup>2</sup>	20 195	..	20 464	..
Quebec	6 510	..	6 371	..
Ontario	4 217	..	4 366	..
British Columbia	5 760	..	5 370	..
Other provinces	3 708	..	4 356	..

<sup>1</sup> Includes screenings.<sup>2</sup> The differences between these figures and the quantities of mill shipments represent the amounts of pulp further manufactured by the reporting companies.

## 8.11 Shipments of basic paper and paperboard, by type and province

Type and province	1981		1982	
	Quantity '000 t	Value \$'000	Quantity '000 t	Value \$'000
Type				
Newsprint paper	8 836	4,385,980	7 740	4,057,487
Book and writing paper	1 582	1,205,059	1 684	1,337,221
Wrapping paper	516	327,233	448	305,119
Paperboard	2 305	959,353	1 926	850,019
All other papers	279	187,871	264	189,866
Total	13 519	7,065,496	12 062	6,739,712
Province				
Quebec	6 036	3,215,570	5 491	3,069,904
Ontario	3 442	1,915,377	3 030	1,841,154
British Columbia	1 931	905,048	1 819	944,889
Other provinces	2 110	1,029,501	1 722	883,765
	1983		1984	
	Quantity '000 t	Value \$'000	Quantity '000 t	Value \$'000
Type				
Newsprint paper	8 440	4,155,686	8 992	4,821,195
Book and writing paper	1 712	1,363,794	1 974	1,711,130
Wrapping paper	464	306,114	467	339,759
Paperboard	2 169	965,757	2 348	1,155,972
All other papers	258	170,726	285	166,186
Total	13 044	6,962,077	14 066	8,194,242
Province				
Quebec	5 796	3,162,916	6 267	3,735,234
Ontario	3 360	1,970,704	3 665	2,351,292
British Columbia	2 058	984,574	2 033	1,067,124
Other provinces	1 830	843,883	2 101	1,040,592



## 8.12 Exports of pulp and newsprint to Britain, United States and all countries

Commodity and year	Britain		United States		All countries	
	Quantity t	Value \$'000	Quantity t	Value \$'000	Quantity t	Value \$'000
Pulp						
1980	377 944	205,773	3 515 798	1,911,688	7 244 311	3,866,989
1981	306 221	176,113	3 479 527	1,987,636	6 751 976	3,820,334
1982	275 209	144,339	3 110 184	1,699,966	6 122 580	3,233,715
1983	266 048	114,264	3 547 516	1,608,874	6 805 780	3,048,685
1984	391 280	212,349	3 599 148	2,061,785	7 029 229	3,906,468
1985	337 365	161,875	3 550 645	1,827,634	7 024 185	3,393,793
Newsprint						
1980	433 593	250,930	6 209 403	2,924,483	7 706 840	3,676,468
1981	554 345	351,716	6 164 338 <sup>r</sup>	3,303,468 <sup>r</sup>	7 985 531 <sup>r</sup>	4,325,517 <sup>r</sup>
1982 <sup>r</sup>	551 435	350,398	5 578 869	3,217,762	7 081 176	4,086,167
1983	503 460	274,115	5 949 200	3,234,761	7 378 862	3,955,709
1984	388 833	208,743	6 686 331	4,055,631	8 127 050	4,783,513
1985	272 954	158,724	6 948 988	4,688,940	8 274 702	5,407,368

## 8.13 Imports and exports of fish products

Product group and country	Imports							
	1984				1985			
	Quantity t	Value \$'000	Quantity %	Value %	Quantity t	Value \$'000	Quantity %	Value %
Seafish								
Fresh or frozen	43 472	99,371	100	100	51 732	122,076	100	100
United States	30 049	73,896	69	74	32 712	82,249	63	67
European Economic Community	5 019	9,371	12	9	6 048	17,177	12	14
Portugal	1 525	4,391	4	4	1 417	4,046	3	3
Japan	3 857	5,608	9	6	3 331	5,427	6	4
Steaks, blocks, etc., fresh or frozen	5 346	14,180	100	100	5 369	14,351	100	100
United States	5 168	13,659	97	96	5 029	13,459	94	94
Smoked	338	1,442	100	100	382	1,855	100	100
United States	119	615	35	43	137	956	36	52
European Economic Community	200	762	59	53	220	761	58	41
Salted or dried	1 301	4,815	100	100	1 504	5,587	100	100
United States	418	1,021	32	21	383	1,137	25	20
Norway	356	1,270	27	26	426	1,512	28	27
Hong Kong	188	1,162	14	24	308	1,426	20	26
Cured or pickled	312	651	100	100	424	707	100	100
United States	54	80	17	12	18	34	4	5
European Economic Community	192	463	62	71	269	474	63	67
Canned <sup>1</sup>	18 091	80,792	100	100	16 310	71,663	100	100
United States	5 419	26,925	30	33	4 219	20,414	26	28
Japan	5 020	21,380	28	26	4 602	20,804	28	29
Philippines	2 201	6,835	12	8	2 479	7,591	15	11
Thailand	2 428	7,921	13	10	2 529	7,634	16	11
Fiji	1 018	4,769	6	6	563	2,527	3	4
Meal	5 570	1,745	100	100	742	193	100	100
United States	3 050	581	55	33	742	193	100	100
Oil	273	563	100	100	359	620	100	100
United States	68	139	25	25	124	283	35	46
Norway	89	171	33	30	80	173	22	28
Other seafish products	5 023	6,776	100	100	5 802	8,227	100	100
United States	1 839	2,589	37	38	2 996	3,416	52	42
Japan	1 012	1,314	20	19	407	1,271	7	15
Shellfish								
Fresh or frozen	27 777	216,844	100	100	27 293	218,525	100	100
United States	16 337	128,736	59	59	16 114	125,710	59	58
Hong Kong	2 593	23,164	9	11	2 721	23,020	10	11
Cuba	1 000	14,263	4	7	1 429	18,193	5	8
Ecuador	482	6,593	2	3	242	3,090	1	1
Canned	9 656	53,610	100	100	8 871	42,113	100	100
United States	1 244	14,554	13	27	1 022	9,603	12	23
Japan	976	3,724	10	7	269	1,363	3	3
South Korea	1 731	10,018	18	19	1 553	8,784	18	21
Thailand	4 022	17,079	42	32	4 294	15,253	48	36
Other shellfish products	15 106	1,348	100	100	14 855	1,509	100	100
United States	15 085	1,346	100	100	14 847	1,508	100	100
Total, sea fisheries	132 265	482,137	...	...	133 643	487,426	...	...

## 8.13 Imports and exports of fish products (continued)

Product group and country	Imports							
	1984				1985			
	Quantity t	Value \$'000	Quantity %	Value %	Quantity t	Value \$'000	Quantity %	Value %
Freshwater fisheries								
Fresh or frozen	2 588	8,992	100	100	2 487	8,374	100	100
United States	2 212	7,442	85	83	2 225	7,455	89	89
Total imports, all groups	134 853	491,129	...	...	136 130	495,800	...	...
Summary by main countries								
United States	81 062	271,583	60	56	80 568	266,417	59	54
European Economic Community	7 320	20,411	5	4	8 425	28,866	6	6
Other European countries	9 092	24,430	7	5	6 715	21,202	5	4
Central and South America	6 505	40,893	5	8	10 076	47,927	8	10
Japan	11 319	36,257	8	7	9 455	36,401	7	7
All other countries	19 555	97,555	15	20	20 891	94,987	15	19
Total, all countries	134 853	491,129	100	100	136 130	495,800	100	100
	Exports							
	1984				1985			
	Quantity t	Value \$'000	Quantity %	Value %	Quantity t	Value \$'000	Quantity %	Value %
Seafish								
Whole or dressed, fresh	70 454	72,770	100	100	89 281	107,048	100	100
United States	51 025	66,338	72	91	75 551	100,248	85	94
USSR	17 725	3,013	25	4	10 076	1,813	11	2
Whole or dressed, frozen	65 351	203,201	100	100	65 235	231,089	100	100
United States	11 438	38,809	18	19	12 047	42,331	18	18
European Economic Community	16 116	74,470	25	37	16 831	70,849	26	31
Japan	31 572	74,636	48	37	25 991	98,098	40	42
Fillets, fresh	16 064	55,243	100	100	26 565	101,755	100	100
United States	15 868	54,804	99	99	26 227	100,861	99	99
Fillets, frozen	86 323	287,513	100	100	72 614	264,362	100	100
United States	76 460	269,687	89	94	64 007	248,101	88	94
European Economic Community	6 273	9,361	7	3	4 825	8,596	7	3
Blocks, frozen	54 584	123,474	100	100	55 642	147,711	100	100
United States	43 586	107,755	80	87	46 933	129,670	84	88
European Economic Community	10 325	13,917	19	11	8 062	16,257	14	11
Smoked	6 312	12,583	100	100	7 171	14,426	100	100
United States	704	3,470	11	28	866	3,866	12	27
Dominican Republic	968	1,288	15	10	2 071	2,720	29	19
Haiti	3 128	3,980	50	32	2 583	3,164	36	22
Salted and dried	40 209	101,269	100	100	39 769	105,780	100	100
United States	9 978	33,324	25	33	9 242	34,232	23	32
European Economic Community	4 011	9,341	10	9	3 187	9,108	8	9
Portugal	10 676	18,727	27	18	11 696	23,470	29	22
Puerto Rico	5 621	14,649	14	14	4 616	12,979	12	12
Cured and pickled	15 690	17,647	100	100	19 672	18,751	100	100
United States	9 106	11,823	58	67	8 136	10,286	41	55
European Economic Community	1 206	1,091	8	6	1 024	720	5	4
Haiti	2 984	2,472	19	14	3 492	2,543	18	14
Canned	27 160	120,615	100	100	27 652	118,217	100	100
United States	2 819	9,545	10	8	3 530	13,708	13	12
European Economic Community	8 318	50,147	31	42	8 497	49,146	31	42
Australia	3 537	19,350	13	16	3 553	19,315	13	16
New Zealand	2 160	10,589	8	9	1 340	6,200	5	5
Meal	21 703	11,687	100	100	26 448	8,287	100	100
United States	11 201	6,751	52	58	11 835	6,302	45	76
European Economic Community	5 040	2,204	23	19	3 493	920	13	11
Oil	6 242	3,283	100	100	6 236	3,544	100	100
United States	5 542	2,974	89	91	5 663	3,239	91	91
European Economic Community	700	309	11	9	—	—	—	—
Roe	10 206	117,734	100	100	12 650	152,225	100	100
Japan	9 132	112,074	89	95	11 424	147,022	90	97
Other seafish products	17 459	5,545	100	100	20 456	14,111	100	100
United States	16 790	4,254	96	77	19 252	11,568	94	82
Shellfish								
In shell and meat, fresh and frozen	40 496	355,752	100	100	51 741	459,158	100	100
United States	29 176	279,230	72	78	35 546	351,505	69	77
European Economic Community	4 265	34,248	11	10	4 765	40,701	9	9
Japan	5 756	32,025	14	9	9 758	56,121	19	12
Canned	933	12,120	100	100	695	9,022	100	100
United States	429	6,257	46	52	246	3,864	35	43
European Economic Community	264	3,690	28	30	308	3,965	44	44
Japan	63	542	7	4	34	474	5	5

## 8.13 Imports and exports of fish products (concluded)

Product group and country	Exports							
	1984				1985			
	Quantity t	Value \$'000	Quantity %	Value %	Quantity t	Value \$'000	Quantity %	Value %
Miscellaneous <sup>2</sup>	6 542	9,351	100	100	6 744	10,769	100	100
United States	1 263	1,790	19	19	1 736	2,403	26	22
European Economic Community	5 073	5,001	78	53	4 811	4,778	71	44
Total, sea fisheries	485 728	1,509,787	...	...	528 571	1,766,255	...	...
Freshwater fisheries								
Whole or dressed, fresh and frozen	17 885	38,784	100	100	19 839	42,689	100	100
United States	12 351	30,810	69	79	13 287	32,204	67	75
European Economic Community	921	2,242	5	6	793	2,116	4	5
Japan	3 245	3,331	18	9	4 591	6,410	23	15
Fillets and blocks, fresh and frozen	7 375	48,798	100	100	7 744	46,177	100	100
United States	6 122	41,774	83	86	6 218	38,284	80	83
European Economic Community	947	3,716	13	8	1 224	5,499	16	12
Total exports, all groups	510 988	1,597,369	...	...	556 154	1,855,121	...	...
Summary by main countries								
United States	304 207	972,389	59	61	340 433	1,134,195	61	61
European Economic Community	65 500	214,912	13	13	60 826	221,126	11	12
Other European countries	38 413	48,832	8	3	47 299	63,825	9	4
Central and South America	30 647	67,497	6	4	28 065	61,700	5	3
Japan	52 694	233,247	10	15	54 205	319,400	10	17
All other countries	19 527	60,492	4	4	25 326	54,875	4	3
Total, all countries	510 988	1,597,369	100	100	556 154	1,855,121	100	100

<sup>1</sup> Excludes quantity of sardines and anchovy reported in number of boxes.<sup>2</sup> Quantity excludes seal skins which are reported in numbers.8.14 Products and marketed values of fish, 1984 and 1985<sup>P</sup>

Year and species	Atlantic		Pacific		Canada	
	Quantity t	Value \$'000	Quantity t	Value \$'000	Quantity t	Value \$'000
1984						
Seafish						
Fresh and frozen, whole or dressed	110 277	118,679	71 208	194,041	181 485	312,720
Cod	24 117	29,161	126	142	24 243	29,303
Halibut	2 038	11,993	4 110	13,752	6 148	25,745
Herring	38 712	15,561	171	200	38 883	15,761
Mackerel	4 764	2,657	—	—	4 764	2,657
Salmon	739	4,672	25 069	161,111	25 808	165,783
Capelin	19 117	30,922	—	—	19 117	30,922
Fresh and frozen fillets	114 194	373,740	6 077	22,005	120 271	395,745
Cod	59 642	199,906	836	2,934	60 478	202,840
Haddock	5 599	24,743	—	—	5 599	24,743
Redfish	17 114	48,923	3 347	11,257	20 461	60,180
Pollock	3 928	8,092	170	533	4 098	8,625
Flounder and sole	14 896	66,577	766	4,213	15 662	70,790
Herring	4 901	3,503	1	1	4 901	3,503
Frozen blocks	53 927	125,274	16	40	53 943	125,314
Cod	45 202	103,486	1	1	45 202	103,486
Haddock	887	3,055	—	—	887	3,055
Redfish	135	209	1	1	135	209
Pollock	3 084	5,264	1	1	3 084	5,264
Flounder and sole	3 406	11,261	1	1	3 406	11,261
Herring	51	40	—	—	51	40
Smoked	3 865	10,133	804	9,996	4 669	20,129
Herring bloaters	1	1	—	—	1	1
Salmon	45	1,038	683	9,422	728	10,460
Salted	42 003	98,219	—	—	42,003	98,219
Cod	34 625	83,425	—	—	34 625	83,425
Cured or pickled	9 656	12,530	638	5,408	10 294	17,938
Herring	7 628	10,082	1	1	7 628	10,082
Canned	23 410	111,314	14 514	94,457	37 924	205,771
Herring and sardines	14 510	66,502	—	—	14 510	66,502
Salmon	1	1	14 514	94,457	14 514	94,457
Meal	57 395	23,386	6 304	4,352	63 699	27,738
Groundfish	48 123	19,748	—	—	48 123	19,748
Herring	8 284	3,291	3 939	2,977	12 223	6,268

8.14 Products and marketed values of fish, 1984 and 1985<sup>P</sup> (continued)

Year and species	Atlantic		Pacific		Canada	
	Quantity t	Value \$'000	Quantity t	Value \$'000	Quantity t	Value \$'000
Seafish (continued)						
Oil <sup>2</sup>	5 407	1,953	897	579	6 304	2,532
Groundfish	2 442	775	—	—	2 442	775
Herring	1	1	361	310	361	310
Roe	2 523	14,507	5 823	97,669	8 346	112,176
Herring	1 872	12,678	4 880	92,598	6 752	105,276
Other seafish products	31 347	66,422	13 750	12,356	45 097	78,778
Shellfish						
Fresh and frozen, in shell	31 662	165,045	4 309	13,316	35 971	178,361
Squid	1	1	5	10	5	10
Lobster	15 808	115,681	—	—	15 808	115,681
Crab	10 259	38,876	735	3,800	10 994	42,676
Shrimp	2 231	6,242	445	2,949	2 676	9,191
Fresh and frozen, shucked	16 072	221,733	1 471	10,189	17 543	231,922
Scallops	5 027	76,862	—	—	5 027	76,862
Squid	20	22	—	—	20	22
Lobster	2 111	51,595	—	—	2 111	51,595
Shrimp	2 576	26 854	136	1,873	2 712	28,727
Crab	5 853	61,851	134	1,809	5 987	63,660
Canned	2 483	38,229	6	58	2 489	38,287
Clams	1 089	11,165	1	1	1 089	11,165
Lobster	181	4,514	—	—	181	4,514
Crab	1 213	22,550	1	1	1 213	22,550
Other shellfish products	11 444	8,187	288	2,421	11 732	10,608
Miscellaneous products <sup>3</sup>	23 990	3,517	—	—	23 990	3,517
Total, sea fisheries	539 655	1,392,868	126 105	466,887	665 760	1,859,755
Inland fisheries <sup>c</sup>	...	...	...	...	33 600	120,664
Total, all groups	...	...	...	...	699 360	1,980,419
1985						
Seafish						
Fresh and frozen, whole or dressed	127 100	136,800	66 800	239,600	193 900	376,400
Cod	25 000	31,500	90	110	25 090	31,610
Halibut	2 800	17,400	4 500	16,800	7 300	34,200
Herring	45 700	20,600	150	160	45 850	20,760
Mackerel	11 800	6,600	—	—	11 800	6,600
Salmon	560	5,250	32 900	202,300	33 460	207,550
Capelin	16 800	21,000	—	—	16 800	21,000
Fresh and frozen fillets	122 100	437,800	6 900	26,800	129 000	464,600
Cod	61 500	218,300	500	1,900	62 000	220,200
Haddock	6 500	33,200	—	—	6 500	33,200
Redfish	17 100	53,600	4 100	15,200	21 200	68,800
Pollock	5 950	13,100	270	930	6 220	14,030
Flounder and sole	18 500	92,600	650	3,700	19 150	96,300
Herring	5 450	3,400	—	—	5 450	3,400
Frozen blocks	54 700	148,700	60	160	54 760	148,860
Cod	46 000	123,300	1	1	46 000	123,300
Haddock	1 650	7,250	—	—	1 650	7,250
Redfish	150	250	1	1	150	250
Pollock	3 400	6,850	1	1	3 400	6,850
Flounder and sole	2 400	9,150	1	1	2 400	9,150
Herring	25	20	—	—	25	20
Smoked	3 900	11,200	1 100	13,100	5 000	24,300
Herring bloaters	2 500	3,750	—	—	2 500	3,750
Salmon	50	1,300	900	12,300	950	13,600
Salted	42 100	104,200	—	—	42 100	104,200
Cod	33 800	87,400	—	—	33 800	87,400
Cured or pickled	20 300	21,700	600	4,000	20 900	25,700
Herring	16 000	17,400	200	1,150	16 200	18,550
Canned	26 500	117,000	41 300	263,400	67 800	380,400
Herring and sardines	18 000	83,700	—	—	18 000	83,700
Salmon	—	—	41 300	263,400	41 300	263,400
Meal	53 100	16,100	6 500	3,600	59 600	19,700
Groundfish	43 200	12,500	—	—	43 200	12,500
Herring	9 100	3,350	3 200	2,250	12 300	5,600
Oil <sup>2</sup>	6 900	2,700	1 050	700	7 950	3,400
Groundfish	2 900	1,100	—	—	2 900	1,100
Herring	4 000	1,600	300	270	4 300	1,870
Roe	5 800	40,200	5 350	100,000	11 150	140,200
Herring	5 200	39,100	3 550	90 300	8 750	129,400
Other seafish products	34 700	94,300	14 500	13,800	49 200	108,100



**8.14 Products and marketed values of fish, 1984 and 1985<sup>p</sup> (concluded)**

Year and species	Atlantic		Pacific		Canada	
	Quantity t	Value \$'000	Quantity t	Value \$'000	Quantity t	Value \$'000
Shellfish						
Fresh and frozen, in shell	39 900	206,500	5 100	15,800	45 000	222,300
Squid	17 40	20	—	—	40	20
Lobster	17 500	134,100	—	—	17 500	134,100
Crab	15 200	57,000	750	3,700	15 950	60,700
Shrimp	3 800	11,000	450	3,100	4 250	14,100
Fresh and frozen, shucked	17 100	254,500	1 800	13,200	18 900	267,700
Scallops	5 600	79,300	—	—	5 600	79,300
Squid	—	—	—	—	—	—
Lobster	2 500	67,800	—	—	2 500	67,800
Shrimp	2 300	25,500	150	2,100	2 450	27,600
Crab	6 000	74,800	150	1,800	6 150	76,600
Canned	1 550	21,000	—	—	1 550	21,000
Clams	800	6,550	—	—	800	6,550
Lobster	250	5,650	—	—	250	5,650
Crab	500	8,800	—	—	500	8,800
Other shellfish products	12 600	8,450	250	2,350	12 850	10,800
Miscellaneous products <sup>3</sup>	22 400	3,200	—	—	22 400	3,200
Total, sea fisheries	590 750	1,624,350	151 310	696,510	742 060	2,320,860
Inland fisheries <sup>e</sup>	...	...	...	...	34 300	115,000
Total, all groups	...	...	...	...	776 360	2,435,860

<sup>1</sup> Confidential.<sup>2</sup> Includes seal oil.<sup>3</sup> Quantity excludes number of seals.**8.15 Landings of sea and inland fish and other sea products**

Province or territory	1983			1984		
	Quantity <sup>1</sup> t	Landed value \$'000	Marketed value \$'000	Quantity <sup>1</sup> t	Landed value \$'000	Marketed value \$'000
Newfoundland	455 839	167,419	455,892	450 584	162,244	449,793
Prince Edward Island	40 424	42,926	86,393	38 521	38,301	59,507
Nova Scotia	425 854	276,512	498,725	394 504	265,280	533,476
New Brunswick	108 832	79,682	316,618	100 012	75,567	293,710
Quebec	78 935	57,055	120,334	84 240	57,711	107,986
Ontario	27 538	27,838	55,676	22 667	35,105	70,210
Manitoba <sup>2</sup>	15 005	14,515	26,797	13 040	18,106	34,756
Saskatchewan <sup>2</sup>	2 542	2,762	4,907	3 508	3,998	7,922
Alberta <sup>2</sup>	1 135	788	1,527	1 420	1,248	2,476
British Columbia <sup>2</sup>	191 543	209,787	471,654	169 168	242,935	466,887
Yukon and Northwest Territories	1 153	1,151	2,022	1 163	1,459	2,723
Canada	1 348 800	880,435	1,980,775 <sup>3</sup>	1 278 827	901,954	1,979,440 <sup>3</sup>
Seafish <sup>4</sup>	1 299 982	831,971	1,888,436	1 235 397	840,440	1,859,755
Inland fish	48 818	48,464	92,339	43 430	61,514	119,685

<sup>1</sup> Nominal catches (quantity) refer to the live weight equivalent of landings.<sup>2</sup> Landed value includes final payments to fishermen.<sup>3</sup> Excludes duplication between provinces.<sup>4</sup> Includes only fish and shellfish. Landed value includes marine plants, aquatic mammals, livers, etc.

## 8.16 Landings of the chief commercial fish

Area and species	1983		1984	
	Quantity t	Value \$'000	Quantity t	Value \$'000
Atlantic Coast				
Groundfish				
Cod	509 052	187,451	475 942	170,927
Haddock	39 777	24,295	32 654	22,639
Redfish	58 253	12,828	67 302	14,479
Halibut	2 499	7,300	3 142	9,587
Flatfish	76 963	23,330	80 116	25,557
Turbot	20 210	6,093	23 097	7,154
Pollock	33 843	8,701	35 216	8,355
Hake	13 132	3,153	13 739	3,407
Cusk	4 365	1,705	3 125	1,297
Catfish	6 037	1,230	3 638	825
Other	2 000	507	1 535	559
Sub-total, groundfish	766 131	276,593	739 506	264,786
Pelagic and other finfish				
Herring	142 454	23,411	132 592	19,695
Mackerel	19 792	5,192	17 032	3,888
Tuna	417	1,085	254	1,210
Alewife	3 239	708	4 052	913
Eel	527	961	432	773
Salmon	1 219	4,806	858	3,207
Skate	58	3	110	9
Smelts	1 063	481	1 012	486
Capelin	29 939	5,621	43 605	9,722
Other	1 584	4,014	1 152	3,429
Sub-total, pelagic and other finfish	200 292	46,282	201 099	43,332
Shellfish				
Clams	4 939	3,929	6 939	6,047
Oysters	1 487	1,373	2 248	3,456
Scallops	51 289	70,799	36 479	56,386
Squid	13	4	397	128
Lobster	27 655	141,648	28 694	152,681
Shrimp	14 082	19,136	11 755	16,433
Crab	42 204	57,332	43 572	50,531
Other	347	298	832	617
Sub-total, shellfish	142 016	294,519	130 916	286,279
Other sea products	...	4,790	...	3,069
Total, Atlantic Coast	1 108 439	622,184	1 071 521	597,466
Pacific Coast				
Groundfish				
Grey cod	4 623	2,134	3 459	1,672
Ling cod	3 765	2,147	3 707	2,183
Black cod	4 414	6,520	3 852	6,998
Rockfish (Redfish)	12 126	5,100	14 695	7,052
Halibut	3 189	8,307	5 364	9,419
Sole	2 731	1,665	3 225	2,072
Flounder	66	23	169	53
Turbot	315	67	360	75
Pollock	1 092	257	596	136
Hake <sup>1</sup>	30 726	4,980	33 596	5,213
Sub-total, groundfish	63 047	31,200	69 023	34,873
Pelagic and other finfish				
Herring	39 820	46,634	33 703	39,857
Tuna	242	428	47	113
Salmon				
Spring	5 378	17,614	6 254	37,318
Sockeye	14 326	36,617	12 877	45,976
Coho	10 461	22,504	10 089	35,532
Pink	39 538	26,651	12 058	10,742
Chum	4 899	7,605	9 003	14,938
Steelhead	57	94	150	292
Skate	346	46	390	56
Smelts	4	10	2	4
Dogfish	3 071	698	2 441	551
Other	522	300	100	125
Sub-total, pelagic and other finfish	118 664	159,201	87 114	185,504

**8.16 Landings of the chief commercial fish (concluded)**

Area and species	1983		1984	
	Quantity t	Value \$'000	Quantity t	Value \$'000
Shellfish				
Clams	4 419	3,553	6 105	5,700
Oysters	2 453	1,554	2 897	2,109
Abalone	56	464	58	530
Shrimp and prawn	742	3,249	914	4,284
Crab	960	3,320	1 155	4,558
Other	1 202	470	1 902	846
Sub-total, shellfish	9 832	12,610	13 031	18,027
Other items				
Herring roe	227	6,759	172	4,508
Salmon roe	6	12	7	16
Non-food fish	396	5	389	7
Sub-total, other items	...	6,776	...	4,531
Total, Pacific Coast	191 543	209,787	169 168	242,935
Inland				
Tomcod	45	23	87	57
Alewife	887	232	986	195
Eel	202	392	249	542
Salmon	72	133	3	5
Shad	122	11	16	21
Smelts	13 429	3,686	7 490	1,608
White bass	2 093	1,793	2 009	1,878
Sturgeon	104	361	145	412
Whitefish	8 273	7,459	8 357	8,611
Catfish	453	446	381	394
Burbot	77	10	43	8
Tullibee <sup>2</sup>	1 327	1,185	1 803	1,915
Lake trout	599	1,268	679	1,040
Yellow pickerel	5 991	13,022	7 123	18,368
Pike	3 352	1,873	3 233	2,395
Perch	3 787	11,972	5 413	19,324
Carp	643	160	741	158
Sucker	4 055	687	1 465	285
Sauger	1 881	2,730	2 069	3,173
Rock bass	50	80	25	27
Sunfish	129	133	110	115
Arctic char	52	307	62	380
Other fish	1 195	501	941	603
Total, inland	48 818	48,464	43 430	61,514

<sup>1</sup> Includes co-operative arrangement of sales of hake to foreign vessels.<sup>2</sup> Includes lake herring, chub and cisco.**8.17 Market value of all fishery products, by area and species (thousand dollars)**

Area and species		1983	1984	Area and species		1983	1984
Atlantic Coast				Atlantic Coast (cont'd)			
Groundfish				Pelagic and other finfish			
Cod	419,384	419,761		Herring	87,728	120,739	
Haddock	41,272	40,222		Mackerel	10,641	9,544	
Pollock	21,454	20,323		Alewife	1,488	1,379	
Hake and cusk	7,601	6,058		Eel	1,453	1,859	
Redfish	45,158	51,556		Salmon	7,108	5,960	
Catfish	3,818	2,309		Smelt	964	966	
Hailbut	8,481	12,307		Capelin	16,152	31,187	
Turbot	19,591	19,699		Other	44,384	42,702	
Flounder and sole	78,977	79,854					
Other	79,742	87,347					
Sub-total, groundfish	725,478	739,436		Sub-total, pelagic and other finfish	169,918	214,336	

**8.17 Market value of all fishery products, by area and species (thousand dollars) (concluded)**

Area and species	1983	1984	Area and species	1983	1984
Atlantic Coast (cont'd)			Pacific Coast (cont'd)		
Shellfish			Pelagic and other finfish		
Clams	7,398	16,943	Herring	111,050	98,955
Oysters	2,107	2,467	Tuna	430	123
Scallops	98,644	76,864	Spring salmon	29,491	46,582
Squid	216	689	Sockeye salmon	84,996	85,665
Lobster	190,520	174,218	Coho salmon	39,386	59,636
Crab	170,220	125,945	Pink salmon	109,732	44,184
Shrimp	45,704	35,547	Chum salmon	14,776	32,704
Other	530	521	Steelhead salmon	308	1,033
			Unspecified salmon	5,601	6,438
Sub-total, shellfish	515,339	433,194	Dogfish	836	858
			Other	198	157
Other sea products	6,047	5,902			
			Sub-total, pelagic and other finfish	396,804	376,335
Total, Atlantic Coast <sup>1</sup>	1,416,782	1,392,868			
Pacific Coast			Shellfish		
Groundfish			Clams	6,890	10,185
Ling cod	3,815	3,931	Oysters	1,599	2,483
Grey cod	7,452	7,038	Abalone	590	560
Black cod	7,448	8,829	Crab	3,941	5,638
Pollock	2,372	1,485	Shrimp and prawn	3,578	5,059
Rockfish	11,827	14,664	Other	1,254	2,059
Halibut	11,194	13,837			
Turbot	1,124	1,247	Sub-total, shellfish	17,852	25,984
Sole	4,097	4,913			
Flounder	58	74	Other sea products	2,045	1,195
Other	5,566	7,355			
Sub-total, groundfish	54,953	63,373	Total, Pacific Coast	471,654	466,887
			Total, inland	92,339	119,685
			Total, Canada	1,980,775	1,979,440

<sup>1</sup> Excludes duplication.**8.18 Pacific Coast production of canned salmon**

Kind	1983		1984	
	Quantity 21.8-kg cases	Value \$'000	Quantity 21.8-kg cases	Value \$'000
Chum	47,120	4,421	68,579	6,434
Coho	60,560	8,273	25,832	3,791
Pink	996,727	96,723	338,474	38,028
Sockeye	371,483	66,293	230,798	45,898
Spring	4,306	444	2,709	281
Steelhead	331	37	276	25
Total	1,480,527	176,191	666,668	94,457

**8.19 Atlantic Coast production of frozen fillets and fish blocks**

Area and species	1983		1984	
	Quantity t	Value \$'000	Quantity t	Value \$'000
Newfoundland				
Cod	74 207	198,830	66 084	190,213
Haddock	170	558	292	923
Redfish	4 021	10,588	3 824	11,041
Flatfish	13 693	55,457	12 991	53,312
Other	8 192	20,363	7 656	29,386
Total, Newfoundland	100 283	285,796	90 847	284,875



**8.19 Atlantic Coast production of frozen fillets and fish blocks (concluded)**

Area and species	1983		1984	
	Quantity t	Value \$'000	Quantity t	Value \$'000
Maritimes				
Cod	35 507	97,827	23 540	88,332
Haddock	6 650	23,540	1	1
Redfish	—	—	6 244	17,715
Flatfish	4 790	18,884	3 840	17,717
Other	25 701	41,278	22 765	34,789
Total, Maritimes	72 648	181,529	56 389	158,553
Quebec				
Cod	4 859	12,327	3 225	8,270
Haddock	—	—	—	—
Redfish	2 774	6,355	3 934	10,762
Flatfish	259	992	234	994
Other	361	914	322	1,040
Total, Quebec	8 253	20,588	7 715	21,066
Total, Atlantic Coast	181 184	487,913	154 951	464,494
Totals, by species				
Cod	114 573	308,984	99 421	286,815
Haddock	6 820	25,106	1	1
Redfish	—	—	13 897 <sup>2</sup>	39,341 <sup>2</sup>
Flatfish	14 967 <sup>2</sup>	63,548 <sup>2</sup>	17 088	72,086
Other	44 824	90,275	24 545	66,252

<sup>1</sup> Confidential.<sup>2</sup> Includes fillets only.**8.20 Number of registered fishermen, by province**

Type and region	1983	1984	1985
Sea fisheries			
Newfoundland	28,074	27,617	26,564
Prince Edward Island	3,182	3,399	3,719
Nova Scotia	12,543	13,235	13,958
New Brunswick	6,466	6,557	7,466
Quebec	6,234	8,050	6,695
British Columbia	17,061	17,299	18,580
Total, sea fisheries	73,560	76,157	76,982
Freshwater fisheries			
New Brunswick	101	108	—
Quebec	442	450	—
Ontario	1,981	1,588	—
Prairie provinces <sup>1</sup>	5,392	5,600	—
Total, freshwater fisheries	7,916	7,746	—
Total, Canada	81,476	83,903	—

<sup>1</sup> Includes Northwest Territories.

## 8.21 Number of establishments and employees in the fish processing industry, by province

Province or territory	1983		1984	
	Establishments	Employees	Establishments	Employees
Newfoundland	104	8,199	99	8,637
Prince Edward Island	18	718	19	712
Nova Scotia	92	6,208	100	5,793
New Brunswick	71	4,109	74	3,829
Quebec	40	1	39	1,859
Ontario	13	228	15	1
Manitoba	2	1	1	1
Saskatchewan	1	1	1	1
Alberta	--	1	--	1
British Columbia	49	3,007	49	2,972
Northwest Territories	2	1	--	1
Total, Canada	392	24,577	397	24,372

<sup>1</sup> Confidential, included in Canada total.

## 8.22 Fur farm production (dollars)

Province or territory	Value of mink pelts produced on fur farms		
	1983-84	1984-85	1985-86
Newfoundland	258,539	396,453	347,200
Prince Edward Island	401,672	485,063	404,678
Nova Scotia	7,729,718	9,257,254	8,711,527
New Brunswick	454,389	454,602	418,719
Quebec	7,975,170	8,586,178	6,724,092
Ontario	16,665,872	19,903,219	17,265,248
Manitoba	1,482,314	1,881,537	1,579,041
Saskatchewan	126,485	98,852	41,821
Alberta	1,110,723	1,450,803	1,057,291
British Columbia	6,949,484	7,534,543	5,979,994
Yukon	--	--	--
Northwest Territories	--	--	--
Canada	43,154,366	50,048,504	42,529,611
	Value of fox pelts produced on fur farms		
	1983-84	1984-85	1985-86
Newfoundland	<sup>1</sup>	93,030	109,290
Prince Edward Island	1,424,725	1,496,232	1,252,715
Nova Scotia	1,146,516	1,132,020	1,321,957
New Brunswick	1,280,552	1,561,664	1,683,636
Quebec	439,223	623,766	873,570
Ontario	852,002	776,005	859,874
Western Canada	703,514	584,228	739,452
Canada <sup>2</sup>	5,846,532	6,266,945	6,840,494

<sup>1</sup> Confidential.

<sup>2</sup> Canada total for 1983-84 does not include Newfoundland for confidential reasons.

**8.23 Pelts of wildlife fur-bearing animals taken, by kind, years ended June 30**

Kind	1982-83 fur season			1983-84 fur season			1984-85 fur season		
	Pelts No.	Total value \$	Average value <sup>1</sup> \$	Pelts No.	Total value \$	Average value <sup>1</sup> \$	Pelts No.	Total value \$	Average value <sup>1</sup> \$
Badger	4,333	151,784	35.03	3,028	88,695	29.29	3,723	83,735	22.49
Bear									
White	227	198,952	876.44	355	256,144	721.53	294	183,211	623.17
Black or brown	2,464	123,910	50.29	2,340	132,269	56.53	2,071	95,863	46.29
Grizzly	12	5,700	475.00	11	5,093	463.00	8	3,552	444.00
Beaver	335,711	6,799,290	20.25	323,877	6,920,083	21.37	362,852	10,900,747	30.04
Cougar	15	3,000	200.00	21	4,431	211.00	15	2,685	179.00
Coyote	73,594	4,058,716	55.15	65,364	2,969,622	45.43	82,877	4,874,685	58.82
Ermine (weasel)	42,925	82,684	1.93	54,821	109,082	1.99	68,442	149,851	2.19
Fisher	21,005	2,956,733	140.76	17,931	2,533,508	141.29	14,308	2,649,608	185.18
Fox									
Blue	187	5,795	30.99	145	5,300	36.55	255	6,041	23.69
Cross and red	87,821	4,786,160	54.50	74,508	3,978,447	53.40	81,621	3,716,479	45.53
Silver	978	51,054	52.20	893	53,533	59.95	919	50,150	54.57
White	14,345	314,368	21.91	15,951	309,987	19.43	22,770	404,608	17.77
Not specified	6	258	43.00	11	412	37.45	3	104	34.67
Lynx	29,533	8,541,187	289.21	13,445	4,583,623	340.92	7,626	4,570,282	599.30
Marten	139,638	5,721,764	40.98	154,515	8,217,158	53.18	150,200	8,638,298	57.51
Mink	79,705	1,956,901	24.55	63,933	1,773,105	27.73	68,326	2,172,838	31.80
Muskrat	1,443,035	5,464,410	3.79	1,408,743	6,092,902	4.33	1,383,776	5,597,970	4.05
Otter	18,450	1,025,059	55.56	15,615	834,773	53.46	18,801	1,028,838	54.72
Rabbit	243	97	0.40	—	—	—	—	—	—
Raccoon	158,369	3,023,198	19.09	101,647	1,609,949	15.84	123,339	2,923,647	23.70
Seal									
Fur, North Pacific <sup>2</sup>	—	—	—	—	—	—	—	—	—
Hair <sup>3</sup>	—	—	—	—	—	—	—	—	—
Skunk	1,004	3,426	3.41	573	1,608	2.81	462	1,022	2.21
Squirrel	348,685	461,858	1.32	545,800	557,060	1.02	261,342	233,244	0.89
Wildcat	2,300	327,435	142.36	2,128	229,866	108.02	2,122	329,009	155.05
Wolf	6,983	570,593	81.71	3,516	383,117	108.96	3,637	393,550	108.21
Wolverine	1,030	204,687	198.73	729	160,712	220.46	831	186,602	224.55
Total	2,812,598	46,839,019	...	2,869,900	41,810,479	...	2,660,620	49,196,619	...

<sup>1</sup> Average value is the price paid to trapper.<sup>2</sup> Commonly known as Alaska fur seal; value figures are the net returns to the Canadian government for pelts sold.<sup>3</sup> Hair seal data for Canada are confidential.**8.24 Value of wildlife pelts produced (dollars)**

Province or territory	1981-82	1982-83	1983-84	1984-85
Newfoundland	776,264	550,928	696,081	772,597
Prince Edward Island	224,773	164,107	195,451	210,580
Nova Scotia	1,203,424	722,936	661,364	867,651
New Brunswick	1,140,025	755,365	959,842	1,274,218
Quebec	8,086,831	6,707,333	5,902,703	8,140,275
Ontario	17,527,478	14,345,905	13,042,242	13,913,003
Manitoba	5,564,487	4,314,014	3,783,562	4,784,524
Saskatchewan	5,428,900	4,092,591	3,960,468	5,099,682
Alberta	9,773,786	7,597,456	5,690,063	6,881,100
British Columbia	3,397,759	3,836,678	3,594,233	4,897,008
Yukon	1,577,178	1,178,518	737,103	1,279,737
Northwest Territories	3,737,039	2,793,778	2,663,947	3,295,306
Canada	58,437,944	47,059,609	41,887,059	51,415,681

**8.25 Exports and imports of furs, years ended June 30 (thousand dollars)**

Kind of fur	1983-84 fur season			1984-85 fur season			1985-86 fur season		
	Britain	United States	All countries	Britain	United States	All countries	Britain	United States	All countries
<b>Exports</b>									
Undressed									
Beaver	348	1,163	4,953	447	1,730	6,984	13	2,387	7,509
Chinchilla	—	123	185	—	191	210	—	178	201
Ermine (weasel)	99	11	157	159	20	185	50	20	84
Fisher	44	2,041	2,270	269	2,847	3,229	17	2,277	2,877
Fox, all types	2,326	3,421	12,340	2,233	4,109	11,209	768	3,668	11,763
Lynx	105	4,042	4,870	71	4,196	4,893	58	3,044	4,397
Marten	1,343	862	5,639	2,411	1,651	8,663	727	2,485	8,624
Mink	4,536	11,596	35,459	2,306	13,622	36,003	1,705	13,564	34,571
Muskrat	2,410	935	9,286	2,892	708	8,007	1,668	89	7,908
Otter	20	114	195	—	92	122	—	59	135
Rabbit	—	39	161	—	76	134	—	128	225
Seal	—	—	1,265	—	—	446	—	—	235
Squirrel	457	22	499	210	33	257	114	1	190
Wolf	428	583	2,627	1,060	1,108	3,366	89	1,033	3,588
Other	1,085	1,689	16,927	2,175	1,870	17,971	729	1,793	14,784
Dressed									
Mink	27	873	5,378	21	1,110	6,836	2	343	8,609
Raccoon	—	3,771	4,732	23	4,452	5,874	—	4,347	6,573
Fur plates, mats	—	77	167	—	1	106	—	79	250
Other	121	9,837	14,153	20	6,779	8,727	23	5,847	9,504
Fur goods apparel	2,731	75,078	110,589	2,155	114,256	144,101	2,512	138,775	167,625
<b>Total</b>	<b>16,080</b>	<b>116,277</b>	<b>231,852</b>	<b>16,452</b>	<b>158,851</b>	<b>267,323</b>	<b>8,475</b>	<b>180,117</b>	<b>289,652</b>
<b>Imports</b>									
Undressed									
China and Japan mink	—	28	107	—	—	—	—	—	11
Fox	3,913	11,138	32,321	4,251	11,083	37,658	4,144	9,249	34,508
Kolinsky	—	—	7	—	—	—	—	—	—
Mink	2,318	23,874	49,968	4,265	27,958	66,625	2,384	27,220	62,038
Muskrat	32	3,865	3,988	—	5,972	5,972	26	5,802	5,830
Persian lamb	—	—	31	—	—	—	—	3	3
Rabbit	—	30	51	—	56	77	—	22	35
Raccoon	2,466	35,860	37,924	402	57,843	59,349	256	44,775	46,336
Other	265	19,761	21,201	803	27,324	30,736	255	25,795	30,607
Dressed									
Hatters' furs	—	—	—	—	2	2	—	—	—
Mink	100	4,233	5,092	215	4,698	11,573	1,667	4,939	15,710
Seal	—	858	984	1	1,627	1,717	14	1,522	1,675
Sheep and lamb	289	1,022	2,002	257	1,027	1,850	221	1,064	1,909
Fur plates, mats	283	265	2,396	489	288	3,598	368	240	4,574
Other	102	3,482	5,042	272	4,695	6,571	658	6,704	10,368
Fur goods apparel	38	1,823	15,580	66	2,542	20,498	47	2,369	32,508
<b>Total</b>	<b>9,086</b>	<b>106,239</b>	<b>176,694</b>	<b>11,021</b>	<b>145,115</b>	<b>246,226</b>	<b>10,040</b>	<b>129,704</b>	<b>246,112</b>

**Sources**

8.1 - 8.4 Communications, Canadian Forestry Service, Agriculture Canada.

8.5 - 8.12 Industry Division, Statistics Canada.

8.13 - 8.21 Communications Directorate, Department of Fisheries and Oceans.

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CHAPTER 9

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**AGRICULTURE**

## CHAPTER 9

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### AGRICULTURE

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## THEN



"Of our Agricultural capabilities, the extent of our annual exports afford satisfactory evidence. The farming lands of Nova Scotia and New Brunswick are much like those of the New England States, those of Ontario produce crops second to none on the continent, and the extensive prairies of the North West are now known to be unsurpassed for depth and richness of soil." (1871)

The Census of 1871 found that 141,300 farmers in Canada, or 48 pct. of all farmers, owned land ranging from 50 to 100 acres. Also, 25,228 farmers, or 7 pct., owned over 200 acres of land each. (1876)

"According to a table in Mulhall's Dictionary of Statistics... Canada stands seventh among the countries of the world, both with regard to the amount of agricultural capital, and of agricultural income, per head of population." (1880)

## IMPORTANT TO FARMERS!

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## NOW

In 1985, 51 pct. of all Canadian agricultural production was exported, half of which was wheat.

Agriculture accounts for about 10% of Canada's economic activity, including the processing, wholesale and retail sectors. Canada is among the top seven net food-exporting countries in the world today.

In 1986, there were 203,080 Census farms in Canada, down from 318,301 in 1981.

In 1986, 10.2% of Census-farm operators were under 35 years of age; 40.6% were from 35 to 54 years; and 34.2% were 55 years and over.



## CHAPTER 9

# AGRICULTURE

### 9.1 Changes in farm life

Today perhaps three or four Canadian families out of every 100 is a farming family. In 1885, when the first Canadian transcontinental rail line was completed, 60 families out of every 100 were farm families and the agricultural settlement of the West, and even of major areas of Eastern Canada, was only starting.

Canada is rapidly leaving behind the days when a close acquaintance with the farming experience could be said to be typical of the majority of Canadians, either through direct on-farm living experience or through having living relatives with that experience.

The Census year showing the peak number of farms was 1941, with 733,000 farms. In 1981 the number of farms was 318,361, yet the volume of agricultural production was about 175% greater in 1981 than in 1941. In 1986, there were 293,089 Census-farms.

The 1940s marked the beginning of a time of major technological change. From 1921 to 1941 the number of farms changed very little and the introduction of the internal combustion engine, replacing horses, was gradual. But in the 10 years from 1941 to 1951 the number of horses on farms declined by twice as much as in the entire 20 years from 1921 to 1941. Altogether there was a reduction of 3 million horses by 1960, when the transition was essentially complete.

The increase in farm size and reduction of farm numbers has continued. Other changes, added to the use of petroleum and electricity for fuel, have included major varietal improvement, development of highly effective pesticides, control of animal health through antibiotics, broad improvement in poultry and livestock through breeding, improved efficiency in feeding, and greatly expanded use of fertilizers. All of this has meant huge increases in the capital requirements of farming in buildings, machinery and equipment, and in production inputs produced off the farm — fuel, electricity, fertilizer, pesticides, seed and veterinary and other services. Specialization in farming has become more and more characteristic of the industry.

The modern history of food production in Canada has therefore been one of constant and sweeping change, begun by the lure of new lands, driven by scientific and technological advances, shaken by drought and depression, and challenged by the crisis conditions of two world wars, and in recent decades by the rising food needs of an exploding world population. One perspective on Canada's agricultural history that should not be forgotten is that the democratic aspirations of the nation were reflected in its homestead and other land settlement policies and programs that established the family-owned and -operated farm as the basis of agricultural development.

The drama of the last 100 years in Canadian agriculture has taken place on hundreds of thousands of individual farms — the farmer's home and place of business — through the combined efforts of homemaker and farmer: in cultivation, animal husbandry, food preparation and preservation, community organization and co-operation. It has also taken place in the laboratories and in the experimental plots and greenhouses of the scientists, on the drawing boards of engineers, in the work of extension specialists and elected officials of the community, and in agricultural schools and colleges. It has taken place in the advance of the science and technology required to transport, process and preserve the products of the farm and to ensure their quality and purity. It has taken place in battles against plant and animal diseases. It has taken place in the patient work of animal breeders, on and off the farm. It has taken place in efforts to protect and improve the structure and nutrient capacity of the soil which is the very foundation of the industry. In the 1980s there has been a growing awareness of the problems of urban encroachment on the most fertile of Canada's agricultural land and of the very great need to conserve for the future the soil and water resources.

Along with advancing technology, the urbanization of the population and increasing incomes have gone massive changes in food processing and distribution. The costs of transportation, processing, packaging and retailing have risen and the farm gate price of farm products has become

a declining proportion of the final consumer price. When the costs of food processing and distribution are added to the costs of inputs produced off the farm, the proportion of the consumer food dollar that represents a return to the farmer's land, labour and capital will be found to be little more than 10%. The bulk of the economic activity involved in supplying the food the consumer eats takes place off the farm, contributing to employment in towns and cities.

Yet the farmer remains a key player. In an industry dispersed over tens of millions of hectares the human challenges have been great, depending in the end on the competence, innovation, decision-making and co-operation of tens of thousands of individual producers.

A major portion of agricultural production in Canada is exported. In 1985, 51% of all Canadian agricultural production was exported and 70% of the agricultural products exported were grains and oilseeds. Wheat holds the prime place in Canada's agricultural exports: approximately half of all agricultural exports is wheat.

The mid-1980s have seen declining world grain prices which have produced a period of great financial stress for farmers, due to compounding the high interest rates during the high inflation years of 1981 and 1982, and exacerbated by drought and grasshoppers in the Prairie provinces.

The role of government — federal, provincial and municipal — has been crucial, for research, extension, credit, regulation, inspection, orderly community development, and services of many kinds. In agriculture, government has had a unique pervasiveness and intimacy because of the extremely dispersed nature of farming, and the very limited size of the individual enterprise. Agriculture has been so fundamental and vital to the nation's development that its progress could not be left to chance.

From the early days of settlement farmers and their wives recognized a need to take organized action to serve their economic, social and professional needs. For example, they organized to press for government legislative and policy action, to form their own co-operative marketing and supply businesses, to assist in acquiring the knowledge and skills in homemaking so essential for survival in a new and often unfamiliar environment, to take legal action when their rights were threatened, and to associate for improvement in animal breeding, cultivation methods and seed growing.

The farmer's organizational needs were not only to help him learn to do his job better, but to protect himself from economic exploitation and damaging instability. They were also to help ensure that there was orderly regulation and inspection

for grading, quality control, and protection from infectious diseases.

The history of farmer organizations in Canada makes a long, complex and often dramatic story. The issues and problems are not all settled today, nor is the drama lacking. The dramatic and complex debate surrounding the federal government move to restructure western grain transportation policy and Crow's Nest Pass statutory rates provides a case in point.

As the number and proportion of farmers declined the role of farm organization has seen important changes. When farmers represented a large proportion of the population and the problems of isolation of the farmer were greater, farm organization functioned in the field of general social policy more actively than it does today, for example in adult education, public broadcasting and health care. Particularly at the federal level its role in these areas has been reduced, with its work much more generally focused on strictly agricultural concerns. This is less true at the provincial level and even less at the community level.

The Canadian Federation of Agriculture is a federation of provincial farmer organizations and commodity groups. Although the only fairly comprehensive umbrella farm organization in Canada, it is not fully representative of farmer organizations. When one speaks of farmer organization this should be recognized as a general term that embraces the substantial body of farmer-owned marketing and supply co-operatives, and producer marketing boards, as well as general membership structures and commodity associations. Democratic farmer organization in Canada is diverse, reflecting the complexity of views and interests in the industry.

## 9.2 Agricultural resources

Agriculture is a major industry in Canada. About 65.9 million hectares in 10 provinces are cultivated; 46.1 million hectares are improved land. Farm cash receipts exceeded \$19.9 billion in 1985 and agricultural and food exports exceeded \$8.9 billion, accounting for 10% of Canada's total exports.

Including the processing, wholesale and retail sectors, agriculture accounts for approximately 10% of Canada's economic activity. Canada is among the top seven net food-exporting countries in the world today.

### 9.2.1 Agricultural regions

There are four main types of farms in Canada. Livestock farms include those specializing in the raising and finishing of beef cattle and hogs; poultry production for meat and eggs; and dairy cattle for the production of milk and other dairy products.

Grain farms produce such crops as wheat, barley, corn, oats, flax and canola/rapeseed. Mixed farms produce both grain and livestock. Special crop farms produce vegetables, fruits, potatoes or other root crops, tobacco or forest products. Each region has its specialties, but none is limited to one type of farming.

**The Atlantic region** includes Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick and the Gaspé district of Quebec. It is hilly, with a covering of relatively fertile soil developed under forest cover. The climate is modified by the sea, but also affected by cold currents from the coast of Labrador and by northern winds. Precipitation averages from 760 to 1 500 mm (millimetres) annually. Mixed farming is general and forage crops support a healthy livestock industry. Small farmers may combine farming with some form of partial employment including lumbering and fishing.

Newfoundland and the Labrador Coast are isolated from the Maritimes and there is a scarcity of good soil. The region produces all of its egg requirements and a large percentage of other commodities. There are development opportunities in dairy and horticulture.

Farming is the leading industry on Prince Edward Island. Potatoes are the major crop but the land also supports mixed grains, dairying and other livestock enterprises. Small fruits and vegetables are produced.

Nova Scotia's main agricultural areas surround the Bay of Fundy and Northumberland Strait where the soil is fertile and the number of frost-free days provides a long growing season. Dairy farms are very common and there is general and widespread hog, poultry, beef and vegetable production. Strawberry production is increasingly important and Nova Scotia has become the leading province in lowbush blueberry production. The Annapolis Valley is famous for fruit, mainly apples. Several hundred farmers specialize in mink and fox production in the region around Yarmouth, making this area a major source of North American supplies.

New Brunswick produces potatoes and livestock in the upper Saint John River Valley. Special crop farming is predominant in the coastal and central areas of the province. Dairy operations which are concentrated in southern New Brunswick and potato farming constitute the majority of commercial farms in the province.

**The central region.** This lowland area bordering the St. Lawrence River includes the Ottawa Valley and extends through Southern Ontario to Lake Huron. Fertile soils, mostly formed by glacial drift and lake sediment developed under deciduous

forest cover, and a mild climate modified by the Great Lakes and the St. Lawrence River, allow varied farming. Precipitation averages from 760 to 1 140 mm a year. This most densely populated part of the country provides large markets for farm produce.

Well over half of Quebec commercial farms are now dairy farms and supply large butter and cheese industries. Livestock farms, specializing in beef cattle, hogs, poultry and egg production, and mixed farms are common. Forage crops account for the largest cultivation and oats and corn are produced for feed. Fruits and vegetables are becoming prime crops. Sugar beets and flue-cured tobacco are also grown and processed.

Ontario has the largest and most diverse agriculture sector, with many specialized crops in southerly regions. It has the largest number of commercial livestock farms and is second in dairy farms. Forage crops account for the largest cultivated area, followed by grain corn, soybeans, mixed grains, winter wheat and barley.

Dairy farms are concentrated in southwestern Ontario, the Bruce Peninsula and eastern Ontario. Beef and hog production are specialties in western Ontario. Poultry and egg production is concentrated in southwestern Ontario while sheep are raised throughout the province. Ontario is a major producer of apples and the Niagara Peninsula grows most of Canada's tender fruit and grapes. Vegetables are grown near most large centres and in the extreme southwest of the province. Maple syrup is a major sideline for some Ontario farmers.

**The Prairie region.** Manitoba, Saskatchewan and Alberta contain 80% of the farmland in Canada. Long sunny summer days coupled with sufficient precipitation ensures strong healthy growth of high quality grain such as hard red spring wheat — the largest single cereal crop — barley, canola and other grain and oilseed crops. The large beef cattle industry is supported by the native grasslands and by the production of cultivated forage crops and feed grains.

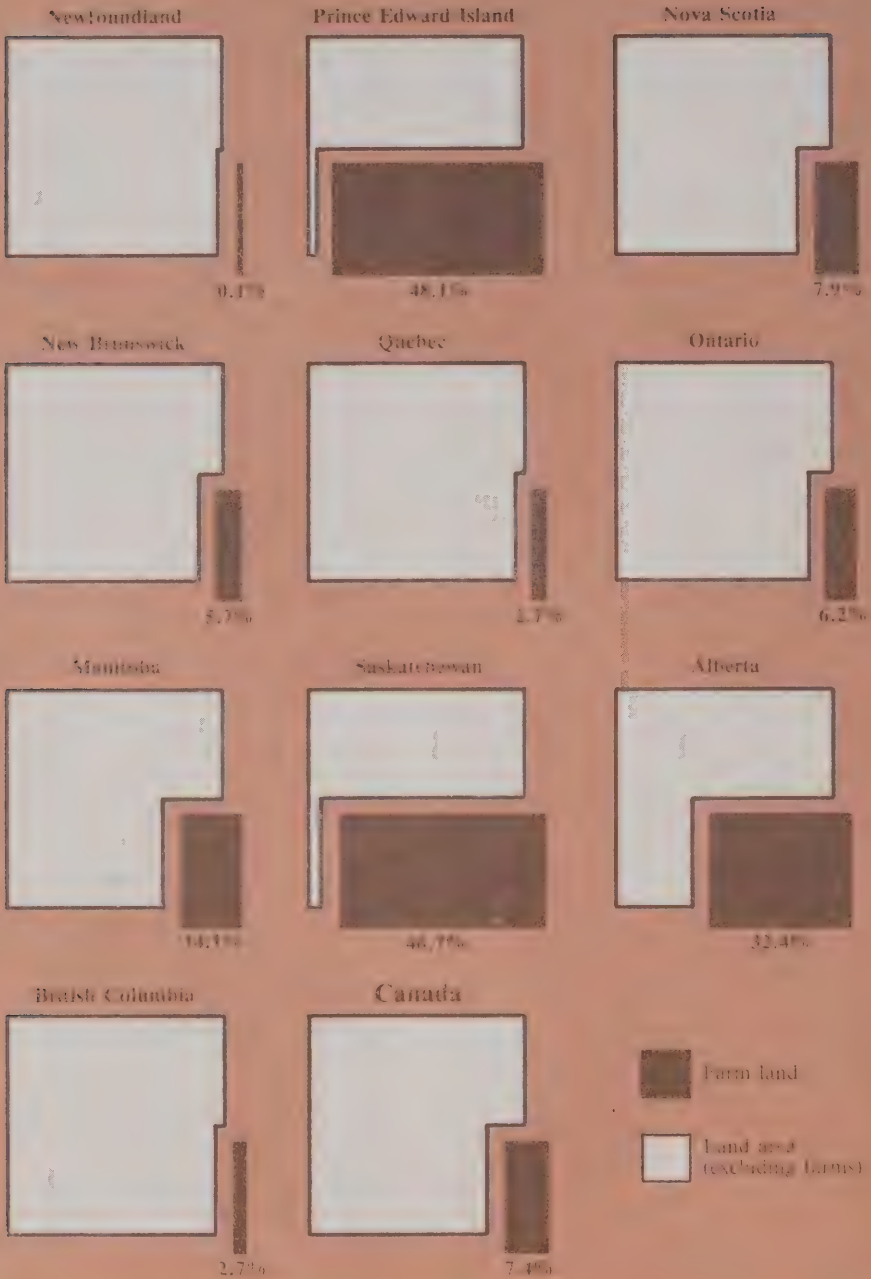
Manitoba, with the highest Prairie rainfall and over 100 frost-free days, has more varied farming. Wheat and other grains predominate but canola/rapeseed and flax are also grown extensively. There is considerable mixed farming with emphasis on beef cattle. Vegetables, sugar beets and sunflowers are grown in south-central Manitoba and processed locally. Dairy farms are common around Winnipeg; poultry, hog and beef production are widespread.

Saskatchewan produces 60% of the Canadian wheat crop as well as large quantities of other grains. Canola, mustard and other oilseeds are popular. Livestock (especially hogs and beef cattle),



Chart 9.1

Farm land as a percent of total land, by province, 1986





dairy, poultry and egg, and specialty crop production are major contributors to Saskatchewan's agriculture economy. Irrigation is increasing and assists forage and vegetable crops.

Alberta, second to Saskatchewan in wheat production, is the major producer of feed grains and beef cattle. Alberta is also a leading producer of hogs and sheep. In the 1986 Census of agriculture, Alberta farms reported about 12.5 million hectares under cultivation by approximately 58,000 farmers. About 22% of this land was in wheat, 21% in barley, 5% in oilseed crops and 25% in cultivated forage crops. About 400 000 ha were under irrigation. In the Peace River district, north of latitude 55°, about 8,000 farmers produce wheat, barley, canola, grass and legume seed plus about 4% of the provincial livestock.

**The Pacific region.** Only 2% of British Columbia's land area is agricultural. Farms, mostly small and highly productive, are concentrated in the river valleys, the southwestern mainland and southern Vancouver Island.

Dairying and livestock, in that order, account for most of the agricultural production. Beef cattle are raised on many farms, particularly in the central and southern interior areas. Dairying and poultry meat and egg production are mainly in the lower Fraser Valley where the population is concentrated. Mixed farming is scattered throughout British Columbia.

British Columbia is Canada's largest apple producer. The Okanagan Valley, where most apples are grown, is also noted for peaches, plums, apricots, cherries and grapes. Raspberries and strawberries are grown in the Fraser Valley and on Vancouver Island along with other horticultural crops such as tomatoes, sweet corn and potatoes. Vancouver Island's mild climate also permits the production of flowering bulbs.

**The northern region.** The agricultural area north of latitude 57° consists of parts of northern British Columbia, Yukon, and the Mackenzie River Valley in the Northwest Territories. Commercial agriculture is not well developed because of the harsh climate and distance to markets. Precipitation varies from light in the northern Yukon to heavy on the mountainous coast of British Columbia. Frosts can occur in any month, but some crops can be grown on well-drained, south-facing slopes. The North is estimated to have 1.3 million hectares of potentially arable land and large expanses of grazing land, but there are probably fewer than 30 commercial farms in the region. Dairy products, beef cattle, forage crops, feed grains and vegetables are produced for small local markets.

### 9.2.2 Farm ownership and labour

Most farms are owned by the operating farmers but as farms increase in size more land is being rented. Payment is usually cash or a share of crops or receipts.

Farm families provide most of the labour but experienced workers are often employed on dairy farms, and seasonal workers for harvests. In the West, combine operators often move their machinery with the harvest, starting in the United States and moving into Canada later in the season. Potato harvesters follow the same pattern in the East.

### 9.2.3 Transportation

On November 14, 1983, the Crow's Nest Pass Agreement was replaced by the Western Grain Transportation Act. The act took effect on January 1, 1984. Among its many provisions, the act sets a limit on the level of freight rates paid by producers. Through amendments in April 1985, a freight rate ceiling was established in the act which guaranteed Prairie grain producers that their freight rate in 1986-87 would not exceed the 1984-85 level. Freight rates are determined by the Canadian Transport Commission (CTC). Railways will undertake an investment program to expand western railway capacity and expenditures for adequate branch line maintenance. Railways have been the traditional means of transporting agricultural products to large markets and ports. Trains move wheat and livestock to Canadian markets and to elevators in Vancouver, Prince Rupert, Churchill and Thunder Bay for shipment abroad. Bulky products such as sugar beets are usually shipped by rail.

Railways are still the dominant means of transportation on the Prairies. Branch line abandonment has been slow and modest since most lines are guaranteed to the year 2000. As an alternative to the railways (especially for short hauls), many farmers utilize the truck mode to get their produce to market. Eggs, poultry, cream, fruits and vegetables go to local markets by road, and milk is generally collected at farms by tank trucks. Commercial farms and co-operatives use trucks for marketing and distributing agricultural products and in delivering supplies.

Water routes supplement these means. The Great Lakes have long been used to ship grain from Thunder Bay to Eastern Canada. Since the opening of the St. Lawrence Seaway in 1959, the Great Lakes/St. Lawrence system has facilitated the movement of bulk commodities by intermediate-sized vessels for eventual export by ocean-going vessels. Churchill is a seasonal port for Prairie grains; Vancouver and Halifax are year-round ports.

### 9.2.4 Marketing and supplies

Farm product marketing combines private trading, public sales and auctions, and sales under contract and through co-operatives or marketing boards.

Canada's principal livestock markets are at Montreal, Toronto, Winnipeg, Calgary and Edmonton. Most cattle and calves are marketed by auction at public stockyards; some are exported; hogs, sheep and lambs are sold directly to packing houses. Hog sales are usually handled by marketing boards. Canadian marketing agencies regulate sales of table eggs, broiler hatching eggs, turkeys and chickens.

Provincial marketing agencies, under direction of the Canadian Dairy Commission, regulate fluid milk marketing in terms of quality, prices and deliveries. In all provinces except Newfoundland, a marketing plan allocates producers a share of the Canadian market for milk used for manufacturing.

The Canadian Wheat Board is responsible for marketing wheat, oats and barley, grown in the Prairie provinces. All Ontario wheat is sold through the Ontario Wheat Producers' Marketing Board.

Fruit and vegetables are distributed through fresh and frozen food markets, canneries and other processors. Most produce is grown under a contract or a pre-arranged marketing scheme; marketing boards, producer associations and co-operatives are common. Tobacco is controlled by marketing boards in Ontario and Quebec, soybeans by a board in Ontario and sugar beets by contracts with refineries in Quebec, Manitoba and Alberta.

Farmers' co-operatives handle or market crops or livestock and supply goods and services needed in farming. Co-operative pool arrangements for farm products guarantee farmers cash advances on deliveries.

Marketing of seed is carried on by private seed companies, farmer-owned co-operatives and seed growers. Seed grades are established by federal regulation. Pedigree seed is produced by members of the Canadian Seed Growers' Association under conditions that ensure purity.

Farm machinery, building materials, fertilizers, agricultural chemicals and other supplies are obtained through commercial and co-operative outlets.

## 9.3 Statistics on agriculture

The Agriculture Division of Statistics Canada collects, compiles, analyzes, abstracts and publishes statistics relating to agriculture. Data are collected through Censuses, intercensal surveys and administrative records. Intercensal surveys keep data updated while the Census is used as a benchmark and a source from which to draw samples.

Primary and secondary statistics on agriculture are published annually, semi-annually, quarterly, monthly and for each Census year.

Agriculture Canada, and various provincial departments and agencies such as the Canadian Grain Commission, the Canadian Wheat Board and the Canadian Dairy Commission, also collect annual and monthly statistics and contribute data to Statistics Canada. Supplementary annual, quarterly and monthly data are provided by thousands of farmers throughout Canada who send in reports voluntarily. Valuable data are also obtained from dealers and processors who handle agricultural products.

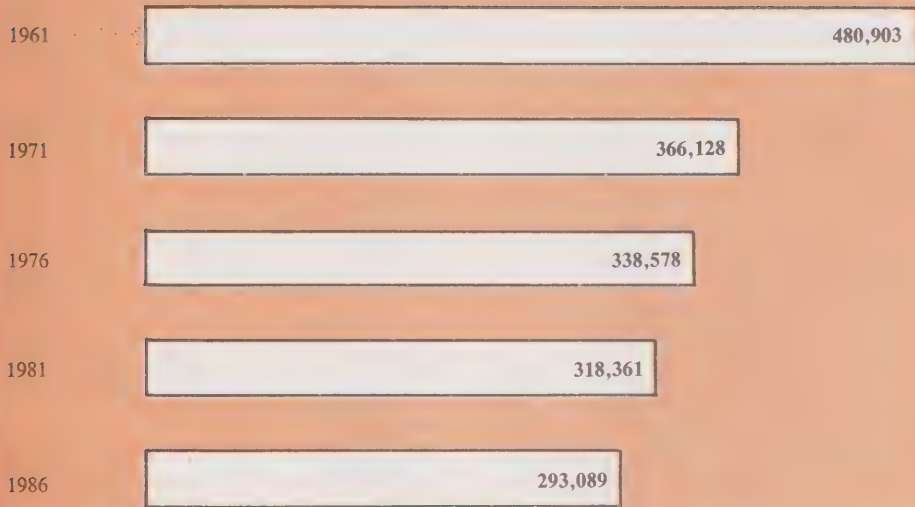
Much of the demand for agricultural statistics is derived from the policy objectives of the food and agriculture sector. Under Canada's constitution, agriculture is a shared federal/provincial responsibility. The federal government's main focus in this regard is on research, policy, standards, quality assurance and regional development. The provincial governments are involved in research, policy and extension work. To maintain stability within agriculture, the policy focus of both levels of government is to ensure adequate incomes to farmers and high quality, affordable food to consumers. Other policies and programs include regional and resource development and market and trade development. Over 200 agriculturally related organizations in Canada, representing the various facets of agriculture, require agricultural statistics to assist them in their efforts.

The primary objectives of the agriculture statistics program of the Agriculture Division of Statistics Canada are to produce the raw data required to aid and improve private and public decision-making concerning the production and marketing of agricultural products, the returns to resources employed in agriculture, and data concerning environmental issues. In general terms, the Division's mandate relates to the farm or primary production level. However, in certain cases, where statistics constitute an integral part of agricultural analysis, that is, supply and disposition analysis, the Division conducts surveys to collect the data required. Examples are statistics regarding grain marketing, per-capita food consumption and food stocks in cold storage. The mandate has also been interpreted to include not only measurements of the current period but also intentions to produce, for example, seeding and farrowing intentions.

### 9.3.1 Census of agriculture, 1986

A Census of agriculture has been conducted every five years since 1951. Prior to that, from 1871 to 1951, it was conducted every 10 years. From the

Chart 9.2  
Number of Census-farms



Census, statistics are compiled on crops, livestock, farm land, labour, capital and many other variables that are significant to the public and private sectors. In 1986, there were 293,089 Census-farms, down from 318,361 in 1981.

**Age of farm operators.** The proportion of operators by major age groups in 1986 was as follows: under 35 years, 19.2%; 35-54 years, 46.6%; and 55 years and over, 34.2%. Since 1971, the proportion of operators under 35 years of age had increased to 21.4% in 1981 from 15.3% in 1971 but the proportion declined to 19.2% in 1986.

The proportion of operators between 35 and 54 years of age had been steadily declining through the 1960s and 1970s, and that trend continued in 1986. The proportion of operators aged 55 years or older, which had been declining from 1966 to 1981, increased by 3.5% between 1981 and 1986. This was the first Census in decades in which the number of older operators increased in absolute terms.

**Type of organization.** In 1986, 99.1% of Census-farms were controlled by farm families. This group included farms that were: individual or family holdings, 82.2%; partnerships with a written agreement, 4.1%; partnerships without a written agreement, 7.6%; and family corporations, 5.2%.

The remaining farms were comprised of non-family corporations, 0.4% and other types, 0.5%. The other types include institutions, community pastures and miscellaneous farms. In 1986, the family controlled farms contributed 94.6% and the non-family corporations, 4.4% of aggregate gross sales.

**Use of farm land.** Although total land stayed basically unchanged, the area under crops increased. This was partly due to the decline in summerfallow acreage in the Prairies. However, area under crops plus summerfallow acreage also increased at the national level. Each Prairie province registered an increase in 1986 area under crops compared to the 1981 levels. In Ontario, Quebec and the three Maritime provinces, the 1986 area under crops was lower than 1981 levels. In Ontario, the decline was nearly 5%. In 1986, area under crops in Ontario was 3.5 million hectares (8.5 million acres) which was slightly below the level of area under crops reported in 1976. In British Columbia, the area under crops increased 0.5% to 0.57 million hectares (1.4 million acres) in 1986. In Newfoundland, the area under crops in 1986 was 2.8% above the 1981 level.

**Land tenure of operator.** Over one-third of farm land in Canada was rented in 1986. Farm operators



are using land rental as an alternative to ownership at an increasing rate. Rented land accounted for 36.3% of total farm land in 1986, up from 30.0% in 1976.

**Size of Census-farms.** In 1986, the average size of Census-farms increased to 231.4 hectares (571.8 acres) from 213.5 hectares (527.6 acres) in 1981 and 202.1 hectares (499.4 acres) in 1976. The average size of farms has been growing since 1921.

Census results also show that 46.8% of Census-farms in Canada were comprised of less than 97.1 hectares (240 acres) in 1986 compared with 48.3% in 1976. In contrast, the proportion of farms equal to or greater than 307.6 hectares (760 acres) rose to 22.6% in 1986 from 18.9% in 1976. The proportion of farms from 97.1 hectares (240 acres) to less than 307.6 hectares (760 acres) declined marginally between 1986 and 1976. However, there were wide variations among provinces.

**Fertilizer use.** In 1985, fertilizer was applied to 66.1% of Census-farms. They utilized 4.1 million tonnes of commercial fertilizer on 23.1 million hectares (57.2 million acres) which is one-half of all improved land in Canada. For the first time in 1986, Census data were collected on the amount of fertilizer used by type including dry granular, pressurized liquid or gas (including anhydrous ammonia), non-pressurized liquid and suspensions.

**Spraying and dusting.** In 1985, 62.0% of Census-farms applied pesticides, an increase of 9.3% from 1980. Spraying and dusting of farm land went up by 63.2% to 27.6 million hectares (68.1 million acres) in the same five-year period.

**Irrigation.** The number of farms reporting irrigation in Canada increased by 19.9% in 1985 compared to 1980 while the area irrigated increased by 25.4%. The 1986 Census, for the first time, collected data on various irrigation systems across Canada. More detailed analysis of irrigation will now be possible.

**Sub-surface drainage.** For the first time, the Census of agriculture has collected data on sub-surface drainage, a technology employed most extensively in Eastern Canada. According to the 1986 Census, 38.7% of the improved farm land in Ontario and 28.5% in Quebec was sub-surface (or tile) drained.

**Farm machinery.** A total of 728,074 tractors were reported on farms according to the 1986 Census of agriculture, an increase of 10.7% from 1981. For the first time in the Census, respondents were asked to report two-wheel-drive and four-wheel-drive tractors separately. Two-wheel-drive tractors accounted for 89.1% and four-wheel-drive, 10.9% of total tractors.

Other farm machine inventories in 1986 compared to 1981 were as follows: farm trucks, up 8.4%; grain combines, down 2.0%; swathers, down 1.4%; pick-up hay balers, down 2.6%; and forage crop harvesters, down 10.7%.

**Hired agricultural labour.** A total of 141,841 farms reported hired agricultural labour in 1985, an increase of 23.1% from 1980 and total weeks of hired agricultural labour increased 26.0%.

**Sales class.** According to the 1986 Census, the number of farms with sales of \$50,000 or over rose to 113,096, an increase of 24.3% from 1981. The bulk of the increase was in the \$100,000 or over sales class (59.8%) while the \$50,000 to \$99,999 sales class increased marginally (0.4%).

Conversely, the number of farms with less than \$50,000 sales declined to 179,993 in 1986, a decrease of 20.8% from 1981. The largest decrease was recorded in the under \$2,500 sales class (30.8%), followed by \$25,000 to \$49,999 (20.8%), \$2,500 to \$4,999 (19.6%), \$10,000 to \$24,999 (17.1%) and \$5,000 to \$9,999 (14.6%).

**Product type.** In 1986, farms with sales of \$2,500 or more were classified by product type. The proportion of small grains (excluding wheat farms) at the Canada level was recorded as 22.5% in 1986 which represents the largest increase (3.3%) from 1981. The second largest increase (1.3%) from 1981 was registered for miscellaneous specialty farms, followed by cattle, mixed farms, and fruits and vegetables.

The proportion of wheat farms in 1986 at the Canada level was 18.0%, representing the largest decline (2.6%) from 1981. The second largest decline (2.3%) was noted for dairy farms from 1981, which was followed by field crops (other than small grains) and poultry.

**Farm capital.** Farm capital is comprised of land and buildings, machinery and equipment, and livestock and poultry. Total capital value in 1986 was \$109,675.7 million, down 15.8% from 1981. Land and buildings declined in value by 22.5% and value of livestock and poultry decreased by 8.0% between 1981 and 1986. In contrast, the value of machinery and equipment increased by 19.0% during the same five-year period.

## 9.4 Trends in the 1980s

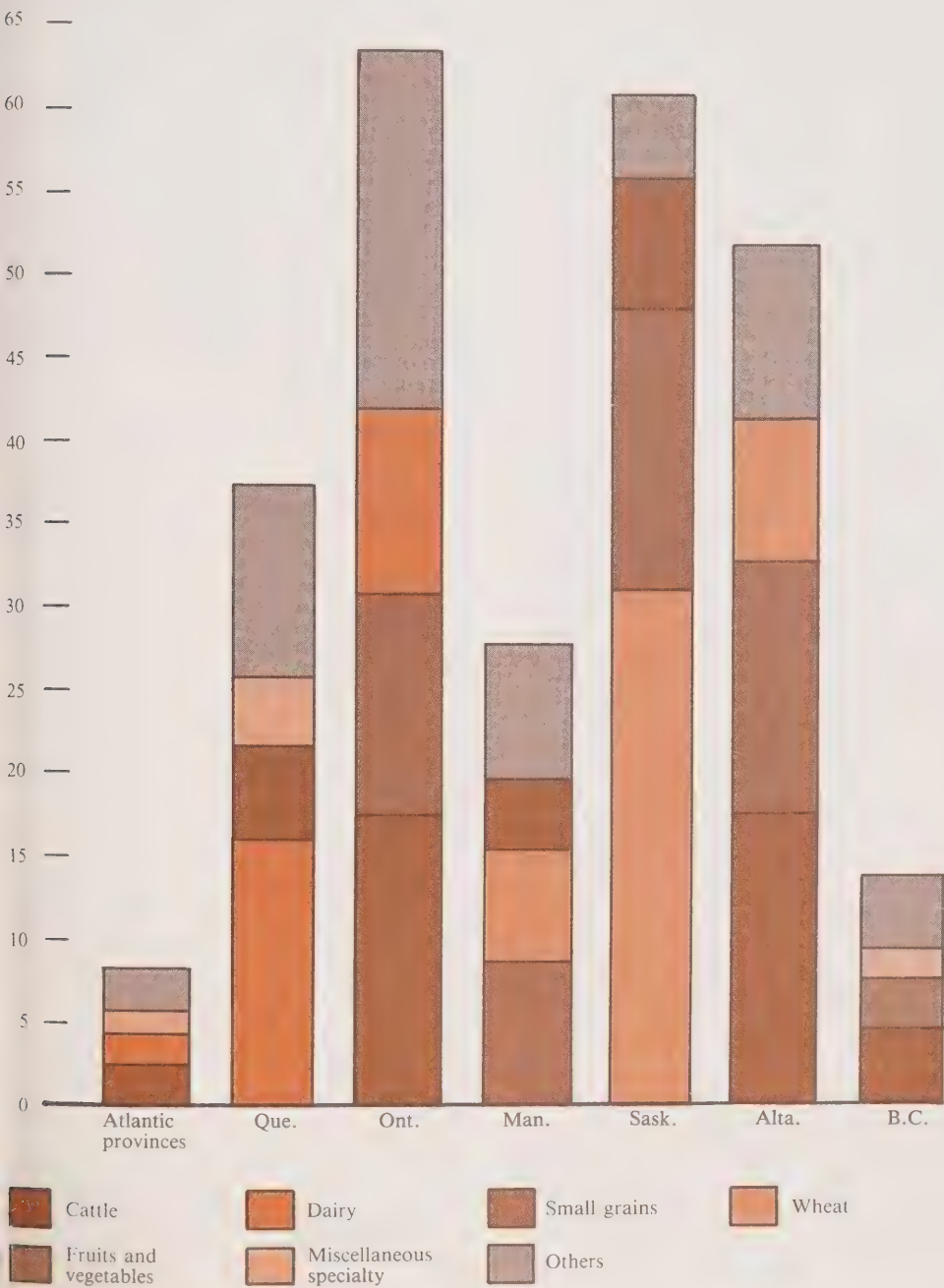
### 9.4.1 International influences

Canada's agriculture production relies to a great extent on foreign markets, therefore, events which affect its trading partners also affect the agriculture sector. The 1980-86 period was characterized by a number of major events which affected Canadian agriculture and, consequently, the income:



Chart 9.3  
**Census-farms with sales of \$2,500 or more, classified by major products and province, 1986**

Number of farms  
in thousands



of Canadian farmers. Following are some of these events which principally affected the Canadian grains and oilseeds sector.

In 1980, international demand for Canadian grain was strong and prices were relatively high, continuing four years of strong growth which began in 1976-77. By 1981-82, however, growth in demand began to stall as world supply increased relative to demand.

Between 1980 and 1986, a number of major importing countries attempted to increase their degree of self-sufficiency and reduce their reliance on imports. During this period, world cereal production increased 18%, a rate which has grown faster than demand over the same period. Consequently, farm stocks have grown and market prices have fallen. World wheat prices, for example, have decreased by almost 50% and wheat stocks have increased by two-thirds during the past six years.

The debt crisis experienced in developing countries and some eastern European countries in recent years has had a negative effect on world agricultural trade. The large appreciation of the US dollar during the early 1980s and the fact that the debt owed by the debtor countries is generally in US dollars, have put a strain on their external-payments position. These countries were major importers but were forced to severely restrict all imports, including agricultural imports, under austerity programs established in order to correct their deteriorating balance-of-payments position.

Canadian agriculture in the 1980s has also been affected by a growing level of protectionism in some countries. Access to these markets are restricted in order to ensure that prices to producers are maintained at levels above world prices. High support prices have contributed to large world surpluses. In addition to large stocks of grains, great quantities of excess butter and milk powder have accumulated in the European Economic Community (EEC), the US and other major producing countries. Support prices in the EEC, under its Common Agricultural Policy, transformed a cereals deficit position in the mid-1970s into the present surplus position for the EEC. In order to reduce increasing stock levels, exports of agricultural products were offered at reduced prices. The EEC is currently the third-largest exporter of wheat in the world. Other countries were forced to follow this lead and, in 1985, the US introduced its Export Enhancement Program, under which \$2 billion could be spent over three years to improve US export competitiveness by using Commodity Credit Corporation inventories to allow US exporters to lower prices of certain commodities to selected markets.

As world stock rose and commodity prices fell in the early 1980s, government payments to producers increased under various programs to maintain producer incomes. Several countries took measures to reduce agricultural production. In July 1983, the EEC introduced quotas to control dairy production and established a high over-quota levy. The US also introduced levies on the support price of milk and a diversion payment to producers who cut their output. The US Food Security Act of 1985 included such policy mechanisms as reduced loan rates, reduced acreage programs, paid diversions, the expanded use of payment-in-kind (PIK) certificates to reduce high government-controlled stocks and higher deficiency payments.

Recently, there has been growing support through organizations such as the Cairns Group of agricultural exporting countries, for policy changes that would reduce production surpluses and improve producer incomes while, at the same time, lowering the burden on government treasuries.

#### 9.4.2 Agriculture production trends

Agriculture production in Canada has undergone several changes during the past six years. While overall production changed little during the period (there was a 13% increase in the index of farm production between 1980 and 1985), the output of some commodities and commodity groups experienced considerable variability due to weather, prices and consumer preferences.

Crop production rose 24% between 1980 and 1985, led by increases of 59% in oilseeds, 25% in potatoes and other vegetables, and 21% in cereals. The increase was not steady throughout the period. A drought in the Prairie provinces in 1984 decreased cereal production by 18% that year. In 1985, weather conditions reduced both yields and quality of what appeared to be a bumper crop.

Through the first half of the 1980s, Canadian cropland increased 7% due in part to Prairie farmers reducing summerfallow area and seeding more land to cereal and oilseed crops. Prairie summerfallow area declined 1.2 million hectares (3 million acres) between 1981 and 1986, while area seeded to cereal, oilseed and forage crops increased by almost 2.4 million hectares (6 million acres).

Wheat continued to be the single-most important crop in the Prairie region, accounting for 51% of Prairie cropland in 1986. Prairie wheat area exceeded 12.1 million hectares (30 million acres) in all years between 1981 and 1986. In the previous five years (1976-80), wheat area never exceeded 10.9 million hectares (27 million acres). Western Canadian farmers have, for the most part, continued to grow the traditional low yielding, high

quality wheat varieties for bread and pasta products; although, in the early 1980s, some did switch to higher yielding, medium quality wheat varieties such as HY 320.

Despite depressed prices in the 1980s, Canada has held onto traditional export markets, maintained grain production in Western Canada and increased corn production in Ontario and Quebec. The latter trend, apparent since the mid-1970s, reduced demand for Prairie barley used for livestock feed by farmers in Central and Eastern Canada.

Canadian grain producers continued to rely heavily on export markets. Approximately 90% of Prairie wheat shipments to the commercial elevator system were destined for export. Over the years 1981 to 1986, wheat exports alone ranged from 16.0 to 22.1 million metric tonnes and Canada supplied approximately 20% of the world market. Wheat exports generated \$3.0 billion to \$4.8 billion annually over the same period. All indications are that wheat, barley, canola and flaxseed exports will continue to make an important contribution to Canada's export earnings.

While production of horticultural crops has increased during the 1980-86 period, the output has been subject to wide yearly fluctuations due to weather and other factors. Between 1980 and 1981 fruit production decreased 19% but rose to slightly above the 1980 level by 1985. By contrast, vegetable production rose 10% between 1980 and 1981 and increased further over the next four years.

Production of livestock and animal products rose only 3% between 1980 and 1985. During that time, poultry and hog production rose 17% and 7%, respectively, while output for eggs and cattle and calves dropped slightly, and milk and cream production remained virtually unchanged.

In contrast to grains, where world supply and demand are very important, production of livestock and animal products is much more dependent on domestic or North American factors. Marketings of poultry, eggs and milk are controlled by supply management, and therefore the largest part of production is for domestic use. For cattle and pigs, while influenced by North American factors, the majority of animals are destined for consumption within Canada.

In Canada, apparent per-capita consumption of red meats has been relatively steady since 1982 and was at 71.3 kg in 1986. Red meat per-capita consumption trended downward until 1981, after reaching a record high of 81.6 kg in 1976. In 1986, apparent per-capita consumption of beef was at 39.2 kg, comparable to levels prevalent

in the late 1960s and early 1970s, while pork consumption was at 27.6 kg per capita, down from a record high of 31.3 kg in 1980.

During the 1980-86 period, per-capita consumption of poultry — chickens, stewing hens and turkeys — increased 12%, with most of the increase occurring since 1983. Higher chicken consumption was the major factor in the increase, with factors such as health concerns, increased availability in fast-food outlets and price contributing to the rise in demand. Consumption of broiler chicken and heavy birds increased from 17.3 kg per capita in 1980 to 20.3 kg in 1986. By contrast, per-capita consumption of eggs decreased from 19.0 dozen in 1980, to 17.9 dozen in 1986.

The number of pigs on farms in Canada decreased during the early 1970s to a low of 5.5 million head at July 1, 1975, before climbing to a record high of 10.2 million in October 1981. In the 1986 Census, pig numbers on farms in Canada stood at 9.8 million head. The number of farms reporting pigs declined from 122,479 in 1971 to 36,472 in 1986. The average number of pigs per farm increased dramatically from 66 in 1971 to 268 in 1986, reflecting increased efficiencies and specialization on farms.

In 1984, exports of live pigs tripled from the levels recorded in 1982 and 1983 to reach 1.3 million head. Exports remained at a relatively high level of 1.2 million head in 1985 but dropped sharply to one-half million head in 1986 as the United States imposed a countervailing duty on Canadian live hog exports to that country in mid-1985.

Census figures indicate that cattle and calf numbers on farms have trended down over the last 10 years from 15.1 million in 1976 to 12.0 million in 1986. Although average herd size has increased, the rate of increase has been much slower than the rate of increase in pigs. The average number of cattle and calves per farm increased from 53 in 1971 to 77 in 1986.

The 1986 Census count of laying hens stood at 22.9 million birds, about 6% lower than the 1981 Census count of 24.2 million. All other chickens (excluding layers and pullets) decreased by 5% to 53.5 million.

Between 1980 and 1986, milk sold off farms rose by only 1% to 7.3 million kilolitres, of which 2.7 million kilolitres were for fluid purposes. For the same period, payments to dairy farmers for milk, including government subsidies, increased by 35% from \$2.3 billion to \$3.1 billion. Sales of low-fat types of milk rose substantially between 1980 and 1986, output of skim milk rose



by 35% and output of 2% milk increased by 23%. In contrast, whole milk sales dropped by 23%.

Of the milk products, yogurt production showed the most dramatic change, recording a 78% increase between 1980 and 1986. Production of variety cheese increased by 60% over the same period. In contrast, cheddar cheese production rose by only 5% and butter production fell 5% between 1980 and 1986.

#### 9.4.3 Farm net income

Two different measures of farm net income are prepared by the Agriculture Division of Statistics Canada. Realized net income is obtained by summing farm cash receipts from farming operations, supplementary payments, and the value of consumption of farm products in farm homes and deducting farm-operating expenses and depreciation charges. This estimate of net income represents the amount of income from farming that farm operators have left for living costs, personal taxes and investment after provision for operating expenses and depreciation charges. Total net income is obtained by adjusting realized net income to take into account changes in livestock and crop inventories on farms during the year. Total net income represents income accruing to farm operators from the production of agricultural products.

In the period from 1980 to 1986, realized net income in nominal terms increased from \$3.3 billion to \$4.9 billion; total net income rose from \$3.1 billion to \$5.8 billion. However, in constant 1981 dollar terms, the increases were less pronounced; realized net income increased from \$3.7 billion to \$3.9 billion and total net income rose from \$3.4 billion to \$4.6 billion. Cash receipts from farming operations increased 28% between 1980 and 1984, largely due to higher marketings of cereal and oilseed crops, then basically levelled off from 1984 to 1986. Total farm expenses and depreciation charges increased 19% between 1980 and 1981 as input prices rose rapidly, then increased only 4% over the next five years. Realized net income rose in 1981, fell during the next two years and then climbed to \$4.4 billion in 1984. Recent gains in realized net income have not resulted from higher market-related farm cash receipts, but were due to an increase in direct program payments and a levelling off of farm expenses and depreciation charges. Net farm incomes were strongly influenced by increased direct payments under federal and provincial government programs. Over the six-year period, from 1980 to 1986, total direct payments to farmers increased by over \$2 billion to \$2.9 billion, with most of the increase in the 1984 to 1986 period.

Total net income has fluctuated to a greater extent than realized net income due to the fact that the value of inventory change may experience wide variations from one year to the next. Largely because of the drought experienced in the Prairie provinces in 1984, the value of inventory decreased by almost \$1 billion in 1984. A large negative change also occurred in 1983 and contributed to the low total net income that year. Total net income increased steadily since that time to a record level in 1986, reflecting that year's record grain harvest.

#### 9.4.4 Receipts from farming operations

Estimates of farm cash receipts measure the value of sales resulting from the production and marketing of all agricultural commodities, except for those commodities sold between farms within a province. The prices used to value all marketings are the prices actually received by farm operators; they include any bonuses and premiums attributable to a specific product but are net of storage, transportation, processing and other charges deducted from prices before producers are paid. The farm cash receipts estimates also include any payments, including government payments, made directly to farm operators for specific commodities or in support of production or farm incomes.

Total cash receipts increased from \$15.9 billion in 1980 to \$20.4 billion in 1986, only slightly surpassing the 1984 record level of \$20.3 billion. In constant dollar terms, total cash receipts for the period 1980-86 peaked at \$18.7 billion in 1981, falling to \$15.3 billion by 1986. The rise in current dollar cash receipts during the early 1980s was due to increases in crop receipts principally for grains and oilseeds. In more recent years however, cash receipts increased due to a rise in direct payments under government programs and to a lesser extent because of higher receipts for livestock and livestock products.

**Crop receipts.** Crop receipts as a percentage of total cash receipts ranged from a low of 45% in 1980 to a high of 49% in 1983 during the 1980-86 period. Crop receipts increased steadily from \$7.1 billion in 1980 to a record level of \$9.8 billion in 1984.

The increase in the early 1980s was due to a rise in grains and oilseeds production and subsequent marketings. However, droughts in 1984 and 1985 in the Prairie provinces, combined with declining world prices for grains and oilseeds, particularly in 1985 and 1986, contributed to annual decreases of 4% and 3%, respectively, in 1985 and 1986 crop receipts. By 1986, crop receipts were \$9.2 billion, similar to the levels obtained in 1983.

The Canadian grain harvest reached a record level in the fall of 1982, which subsequently resulted



Chart 9.4

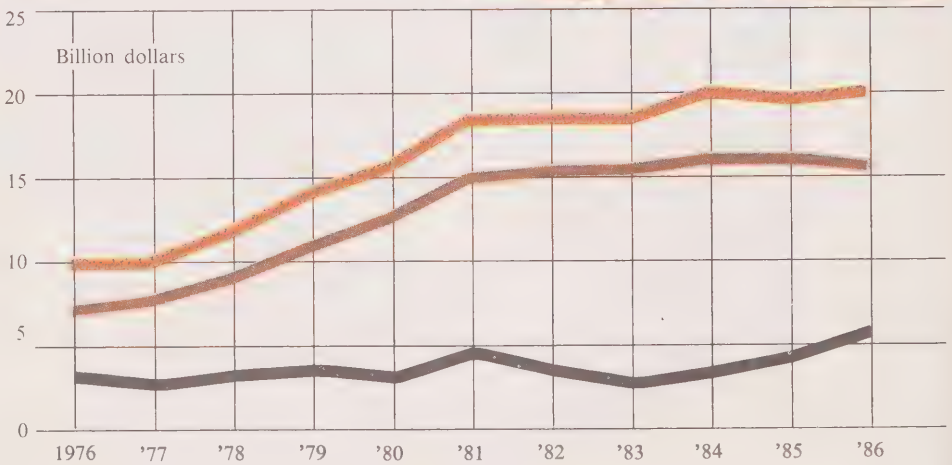
**Cash receipts from milk and cream, sold off farms**



Chart 9.5  
**Farm income, 1976-86**



- Farm cash receipts
- Operating expenses and depreciation charges
- Total net income

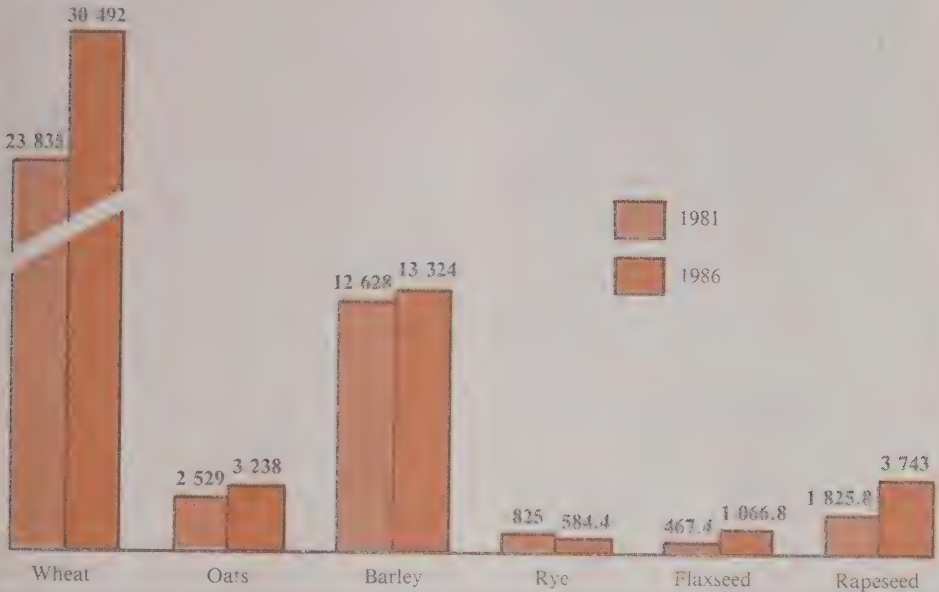


\* Total net income = farm cash receipts + supplementary payments + income-in-kind - operating expenses and depreciation charges + value of inventory change.

Chart 9.6

# Production of grain in the Prairie provinces

Thousand tonnes



in record wheat and barley marketings in 1983 and combined receipts for wheat, oats and barley reached record levels. By 1986, lower prices had reduced wheat cash receipts to their lowest level, \$2.45 billion in the 1980-86 period. In response to lower prices for grains and oilseeds and higher production costs for producing these crops, payments were made to producers under the Western Grain Stabilization Program over the period, including a record \$859 million in 1986.

**Livestock receipts.** Livestock receipts increased from \$8.3 billion in 1980 to a high of \$10.2 billion in 1986. The steady increase over the seven-year period has been mainly due to higher receipts for dairy products, hogs and poultry. During the 1980-86 period, the percentage of receipts accounted for by livestock and livestock products ranged from a high of 52% in 1980, compared to a low of 47% in 1981. In 1986, livestock receipts were 50% of total cash receipts.

Cash receipts for dairy products increased 39% over the 1980-86 period and reached \$2.8 billion in 1986. The increase was due for the most part to rising prices, as milk production increased 2%. Although hog receipts did not increase every year, they reached an all-time high of \$2.1 billion in 1986, mostly because of a sharp rise in prices that year.

Poultry receipts, meanwhile, have increased steadily during the 1980s. Rising consumer demand has led to higher marketings over the period. Poultry receipts increased 41% or \$272 million between 1980 and 1986.

**Other cash receipts.** Until 1985, other cash receipts, which includes forest and maple products receipts, dairy supplementary payments, provincial income stabilization payments, deficiency payments and other supplementary payments, accounted for a small proportion of total cash receipts. In 1980, other cash receipts accounted for 3% of total cash receipts and were \$458 million; however, by 1986 they accounted for 5% and totalled \$1.0 billion. The increase in other cash receipts was primarily attributable to a rise in supplementary payments. Included in supplementary payments were program payments made under various ad-hoc federal and/or provincial programs established to deal with unusual economic or climatic conditions. The high level of supplementary payments in 1986 reflected payments made to producers as a result of drought conditions which prevailed in Western Canada in 1985.

## 9.4.5 Farm expenses

Total farm-operating expenses and depreciation charges increased 23% between 1980 and 1986.



This increase is approximately equal to the increase in the price of farm inputs, which rose 24% over the same period. Farm input prices rose rapidly in the early part of the 1980s, with a 14% increase between 1980 and 1981. From 1981 to 1986, there was an additional increase of only 8%. Farm expenses reflected these price trends closely, with an increase of 19% in 1981 and an additional increase of only 4% in the following five-year period.

Although most individual expense categories increased due to higher prices for farm inputs, some expense categories increased in response to changes in quantities purchased. For example, fertilizer expenses rose 40% in the 1980-1986 period, entirely in response to increased fertilizer use since the average price for all types of fertilizer was virtually unchanged. In contrast, pesticide expenses increased over 80% in the same period, as both the quantity of pesticides used and the average price of pesticides increased about 40% over the six-year period.

The price of farm fuels fluctuated dramatically in the 1980s, with sharp increases in the early part of the decade and sharp decreases in 1986. Aggregate fuel costs increased about 50% from 1980 to 1986, due entirely to increased prices, as farm fuel use was little changed through the 1980s. Increased direct rebates of fuel taxes to farmers by federal and provincial governments reduced the net increase in fuel expenses to farmers to 36% over the six-year period.

Wages paid to hired farm labour increased 57% in the six-year period since 1980. Although average total employment in agriculture increased only 1%, according to the Labour Force Survey, the number of paid workers in agriculture rose over 10%. Wages paid to hired farm labour were 35% higher on average from 1980 to 1986.

Interest expenses in the six-year period since 1980 increased only 13% despite total farm debt outstanding which rose 56%. Interest rates were variable through the 1980s, affecting the amount farmers paid to service their debt. High average interest rates in 1981 were followed by sharply lower rates in 1982 and 1983. Rates in the mid-1980s continued to fluctuate. In 1981, interest expenses rose to 19% of total operating expenses. By 1986, this ratio fell back to 14%. In addition to lower market interest rates, federal and provincial government programs in the form of interest rebates and subsidized loan programs helped limit increases in interest expenses.

Crop insurance premiums more than doubled from 1980 to 1986 as the number of farmers purchasing crop insurance and the level of insurance coverage purchased increased.

An important factor influencing farmers' total expenses was the level of direct government rebate payments on farm inputs. Farm input rebates were paid on such expenses as farm property taxes, fuels, interest charges and feed. From 1980 to 1986, the level of total rebate payments on farm inputs increased from \$182 million to \$510 million.

Farmers' purchases of new capital goods such as farm machinery and equipment have declined from levels recorded in the early 1980s. Canadian farm machinery sales in 1986 were 18% lower than average sales in the 1979-83 period, in constant dollar terms. Lower market receipts from many crops, lower levels of farmer equity and continued relatively high real interest rates contributed to the declines in real investment in farm machinery and structures in the mid-1980s.

## 9.5 Other federal services

### 9.5.1 Agriculture Canada

Responsibilities of the federal department cover three broad areas: research, promotional and regulatory services and assistance programs. Research aims at solving practical farm problems by applying scientific research to soil management, agricultural engineering, and crop and animal production. Promotional and regulatory services apply to market development, crop and livestock improvement, inspection and grading of agricultural products, control of insect pests and diseases of plants and livestock, and registration of pesticides and fertilizers. Assistance programs provide for price stabilization, compensation, and income security in the event of a crop failure. In a recent reorganization, the Canadian Forestry Service has become part of Agriculture Canada.

### 9.5.2 Grains industry

Government involvement in the grains industry predates Confederation and is a record of policies relating to land use and settlement; transportation; grain storage, handling and forwarding; marketing methods and opportunities; income security; and the many ramifications of international competition and the search for international co-operation in the sale of grain. The federal government's role in the grains industry is carried out by Agriculture Canada, External Affairs Canada and two semi-autonomous bodies which report to Parliament through federal ministers: the Canadian Grain Commission and the Canadian Wheat Board.

The Canadian International Grains Institute contributes to the maintenance and expansion of markets for Canadian grains and oilseeds and their



products. The Canada Grains Council provides a forum for co-ordination, consultation and consensus on industry recommendations to government. Organized in 1970 the Grains Group represents the departments of Agriculture, External Affairs and Transport. The group examines problems in production, transportation and handling, and marketing. It co-ordinates, reviews and recommends federal policies for the grains industry.

**Production.** Agriculture Canada conducts research in plant breeding and production methods to improve varieties, yields and quality of marketable grains. The Minister responsible for the Wheat Board provides grain and oilseed producers with information on world market conditions, on an annual basis, in March, in advance of spring seeding. Studies on production and market potential are conducted or funded by the agriculture development branch.

**Marketing.** The grain marketing bureau of the Department of External Affairs provides policy advice to the government, and information and trade promotion assistance for grains and oilseeds and their products through contact with the Canadian Wheat Board, other agencies concerned with grain marketing, trade commissioners abroad, and the private trade sector. Trade promotion includes organization of missions and trade fairs in Canada and abroad. The department also provides cost or risk sharing to exporters for projects designed to increase sales of grains and oilseeds, which would not be realized without incentives.

**Credit.** Canada has been selling grain on credit since 1952. In the 1985-86 crop year, credit sales, which are on terms of three years or less, accounted for 9% of Canadian grains and oilseeds exports. The bulk of these sales were of western wheat and barley marketed by the Canadian Wheat Board and financed under the Canadian Wheat Board Act with a government guarantee of repayment. Sales of other grains on credit are insured under the Export Development Act.

**Food aid.** The Canadian food aid program has expanded from \$2 million in 1962-63 to more than \$350 million. Most of the food aid sent to about 85 countries consists of wheat and wheat products; corn, canola oil, skim milk powder, pulses and fish are also included. The Canadian International Development Administration administers 44% of Canada's food aid to foreign governments under multilateral programs, mainly the World Food Program, 50% through bilateral channels and 6% through non-government organizations. Canada's minimum annual grain and grain products aid commitment under the Food Aid Convention of the International Wheat Agreement is 600 000 tonnes.

### 9.5.3 Canadian Grain Commission

Established in 1912 as the Board of Grain Commissioners, the Canadian Grain Commission is responsible to the Minister of Agriculture, who reports to Parliament on its activities. The Commission administers the Canada Grain Act, which establishes standards of quality for Canadian grains and regulates grain handling in Canada.

Reporting to the Commission, the supervisor of the commodity exchange supervises grain futures trading in Canada under the terms of the Grain Futures Act. The Grain Appeal Tribunal also reports to the Commission and is responsible for examining appeals on grain grading.

Headquartered in Winnipeg, the Commission has offices in 16 centres across Canada and employs about 800 people.

There are four operating divisions. Quality control of Canadian grains as they move through the handling system is maintained by the inspection division. Grain is officially inspected at licensed terminal and transfer elevators and the treatment of grain is supervised and controlled. Weighing of grain at licensed terminal and transfer elevators is supervised by the weighing division. It audits their physical stocks at regular intervals and investigates excessive overages and shortages in grain receipts or shipments. The grain research laboratory assesses the quality of new crops, conducts basic and applied research on Canadian grains and oilseeds and supplies technical assistance to marketers of Canadian grains and oilseeds. The economics and statistics division provides documentation to terminal and transfer elevators, conducts economic studies for the Commission and publishes statistics. It issues grain dealer and elevator licences, monitors security provisions related to licensees, and administers the allocation of rail cars to producers who apply for this service.

### 9.5.4 Canadian Wheat Board

Export sales of Prairie-grown wheat, oats and barley are negotiated by the Canadian Wheat Board, or through grain-exporting companies acting as its agents.

This Board was set up in 1935 as the sole marketing agency for Prairie wheat, and subsequently for oats and barley, sold interprovincially or internationally. Feed grains for domestic use were removed from exclusive Wheat Board marketing in 1974 and have since been traded on the open market. The Wheat Board remains the sole purchaser and seller of feed grains for export. Other crops, such as rye, rapeseed, flaxseed, buckwheat and mustard are marketed by the private grain trade.

The Board's marketing program is accomplished in two stages. First, grain is delivered by the producer to the local elevator under a quota system to meet market commitments. The quota system allocates delivery opportunities among all grain producers. Second, the grain is moved by rail to large terminals in Eastern Canada, Thunder Bay, Churchill, and the West Coast. Grain is also transhipped from Thunder Bay to eastern positions largely by lake vessels. The Wheat Board and the Grain Transportation Agency, another federal agency, jointly co-ordinate the movement of grain from country elevators to terminals on a weekly basis.

The producer receives payment in two stages. An initial price is established by order-in-council before the start of a crop year; this price, less handling costs at the local elevator and transportation costs to Thunder Bay or Vancouver, is in effect a government-guaranteed floor price. If the Wheat Board, in selling the grain, does not realize this price plus necessary marketing costs, the deficit is borne by the federal treasury; after the end of the crop year when the Board has disposed of all the grain, it distributes any surplus in a final payment to producers.

Under the domestic feed grains policy, a producer delivering feed grains to a country elevator has the option of selling the grain to the Wheat Board or on the open market. In the latter case he will, on delivery, receive the full price in contrast to the Wheat Board system of initial and final payments.

**The Prairie Grain Advance Payments Act (PGAPA)** provides for cash advances to producers in the Canadian Wheat Board designated area when quota delivery opportunities are restricted. Advances to grain producers under the act are interest free and are made by the Canadian Wheat Board using its line of credit with the chartered banks. Interest cost on monies advanced is borne by the federal government. As producers deliver grain, their advance payments are repaid through deductions from the sales receipts for their deliveries.

Individual producers can receive up to \$30,000, and partnerships, co-operatives and corporations can receive a maximum of \$90,000.

**Canadian International Grains Institute**, in the Canadian Grain Commission Building, Winnipeg, was incorporated in 1972, and is affiliated with the Wheat Board and the Grain Commission. Financial responsibility is shared by the federal government and the Wheat Board. The institute helps to maintain and enlarge markets at home and abroad for Canadian grains, oilseeds and their products. In its classrooms, conference rooms and

laboratories it offers instructional programs to participants from countries purchasing these commodities and to Canadians associated with the grain industry. The institute includes an 8.16 tonne, 24-hour-capacity flour mill and a pilot bakery.

**Canada Grains Council** was established in 1969 to improve co-ordination on recommendations to government. It co-ordinates activities to increase Canada's share of world markets and efficient use in Canada of grains and grain products. Membership is open to all non-governmental organizations and associations whose members are engaged in grain production, processing, handling, transportation or marketing. Administrative costs are shared by federal government and industry members. The 29 member organizations represent thousands of individuals.

**Western grain stabilization program**, Winnipeg, protects producers against declines in net income from the sale of the seven major grain and oilseed crops in Western Canada. The support given prevents the net income from falling below the average net income in the previous five years on an aggregate and per-tonne basis. The net income is the difference between total receipts from the production and sale of cereals and oilseeds and the cash costs of production, in each crop year.

Under this voluntary program, grain producers contribute a levy ranging from 1% to 2.5% of their grain sales up to maximum sales of \$60,000 a year to the western grain stabilization fund. The federal government contributes an equal amount to the producer levy, plus 2%.

### 9.5.5 Farm assistance

Federal farm assistance programs help ensure stability of the agriculture industry and the supply of food for Canadians. Price-support programs help producers to secure a fair return for their labour and management, provide stability of income, and remain in business during times of depressed prices. Crop insurance, through programs operated provincially with the federal government contributing financially, provides farmers protection against crop losses caused by natural forces such as hail, drought and insects. Availability of credit is important for farmers to improve or expand their operations. Among other assistance programs are those for marketing and feed grain. The assistance programs are administered by Agriculture Canada or by the agencies responsible to the Minister of Agriculture.

**The Farm Improvement Loans Act (1945)** is administered by Agriculture Canada. The government may guarantee loans by chartered banks and other designated lenders to farmers for a wide range of purposes. The maximum which a borrower may

have outstanding is \$100,000. Loans may be repayable over a period up to 10 years for all purposes, except land purchase for which a 15-year term is permitted.

Farm improvement loans must be secured. Borrowers are required to provide a certain portion of the cost of a purchase or a project from their own resources. The maximum rate of interest on loans is based on the prime lending rate of the chartered banks, plus 1%.

**Agricultural Products Board (1951)** is empowered to buy, sell, or import agricultural products; to store, transport, and process such products; to sell agricultural products to any country and to make arrangements for their purchase and delivery; or to purchase agricultural products on behalf of any government or agency. The Board can only sell products at a loss when specifically authorized by the Governor-in-Council. Programs may also be taken in support of market stabilization of agricultural commodities in lieu of action under the Agricultural Stabilization Act.

**Agricultural Stabilization Board (1958)** stabilizes prices of agricultural products to help the industry get fair returns for labour and investment, and to maintain a fair relationship between prices received by farmers and their costs of goods and services. Commodities included are slaughter cattle, hogs, lamb and wool, industrial milk and cream, corn and soybeans, winter and spring wheat, oats and barley produced outside designated areas defined in the Canadian Wheat Board Act. The Governor-in-Council may designate other commodities for support. The Board may stabilize the price of any product by offer to purchase, or by making deficiency payments for the benefit of producers. Stabilizing prices by means of assistance payments has helped balance production and demand. The act also provides authority for a tripartite cost-shared (federal, provincial and producer) stabilization program.

The Board's operations are financed by parliamentary appropriations for that purpose.

**The Crop Insurance Act (1959)** provides that the federal government helps the provinces in making all-risk crop insurance available to farmers on a shared-cost basis. Crop insurance can protect the farmer against unforeseen losses. Initiative for establishing crop insurance rests with the provinces. Programs are developed to meet provincial requirements. The federal government shares the risk by providing loans or reinsurance when indemnities greatly exceed premiums and reserves. Farmers pay 50% of total premiums required to make the programs self-sustaining. The remainder is contributed by the federal government if the province elects to pay all administrative costs.

Otherwise the provincial and federal government share administrative costs and the remaining premium equally.

**Canadian Livestock Feed Board (1966)** is a Crown agency with four main objectives: availability of feed grain to meet the needs of livestock feeders, adequate storage space in Eastern Canada for feed grain needed by livestock feeders, a reasonably stable price of feed grain in Eastern Canada and in British Columbia, and fair equalization of feed grain prices in the domestic market.

The Board may make payments related to the cost of feed grain storage and transportation, the latter payments having been made since 1941. Since April 1967 the freight subsidy has been administered by the Livestock Feed Board. Initially, it was applied only to feed grains produced in the Prairie provinces and designated for domestic livestock consumption in Eastern Canada, British Columbia, and Yukon and Northwest Territories. It was extended to the movement of Ontario corn and wheat to the Atlantic provinces and Quebec and to local grains produced within feed grain deficit regions.

The Board monitors transportation costs for feed grain and protein ingredients and plays a major role in freight rate negotiations and freight rate structure in co-operation with farm organizations, trade associations and the railways. Members and staff of the Board meet with producer associations and industry organizations to deal with problems of the feed grain-livestock sector of Canadian agriculture. Research activities focus primarily on economic aspects of animal feed production, utilization, feed grain marketing, transportation and current and potential problem areas.

**Farm Credit Corporation (FCC)** administers farm loans under the authority of the Farm Credit Act and the Farm Syndicates Credit Act. Its role is to provide financial services to enable Canadian farmers to establish, develop and maintain viable farm enterprises.

Under the Farm Credit Act, the Corporation offers three types of long-term loans: standard farm loans where the applicant must be principally occupied in farming after the loan is made; shared risk mortgages where the borrower and FCC share the costs or benefits of fluctuating interest rates; and loans to beginning farmers who may retain off-farm employment while developing an economic farm business, provided that farming becomes their principal occupation within five years.

The Farm Syndicates Credit Act enables the FCC to lend to groups of three or more farmers, the majority of whom are principally occupied in farming. The loans are for the shared purchase



and use of farm machinery, buildings and installed equipment.

**The Commodity-Based Loans Program** is intended to reduce the number of farm failures among Farm Credit Corporation (FCC) clients by correlating loan payments with commodity price fluctuations. A client under this program is defined as an FCC borrower who under current farm commodity prices is unable to produce sufficient income to pay operational expenses, living costs, provide for replacement of capital, and meet all debt payments at contracted interest rates. By charging a lower rate of interest and by relating the annual debt servicing costs to commodity prices for an enterprise, the commodity-based loan attempts to make the servicing of debt easier for lower equity farmers. Agriculture Canada will reimburse FCC if the operation of this program results in a deficit.

**The Farm Debt Review Assistance Program** provides assistance to farmers in financial difficulty through participation by the Farm Credit Corporation (FCC) in financial arrangements between farmers and their creditors. Agriculture Canada makes contributions to farmers payable to the FCC in amounts equal to concessions made by the FCC under arrangements arrived at pursuant to the Farm Debt Review Act.

**The Advance Payments for Crops Act (APCA)** is a marketing incentive program designed to encourage producers to place their crop in storage at harvest time and sell it out over the remainder of the marketing season while maintaining a cash flow.

This incentive is intended to allow the producer to increase returns, supply the Canadian market with Canadian produce and allow sufficient stock in storage for development of export markets. This is accomplished by advancing individual producers up to \$30,000; partnerships, co-operatives and corporations receive a maximum of \$90,000 at harvest time. This advance assists in harvest time financial obligations so that the producer is able to store the crop. It is repaid as the crop is sold at the same rate per unit as the advance was made. Agriculture Canada pays all interest charges on the bank loan made by the producer organization administering the program for its producer members and also guarantees repayment of up to 98% of the advance payments made by the producer organization.

**The Agricultural Products Co-operative Marketing Act (APCMA)** is a market development program designed to assist and encourage co-operative marketing of agricultural products. This is accomplished by providing a minimum average price guarantee to a co-operative marketing pool prior to the crop year. The price guarantee is divided into two segments, an initial payment guarantee

to producers and a maximum cost guarantee to the co-operative which covers the costs of marketing the crop. At the end of the marketing period for that crop year, if the average price received by the co-operative is less than the level of price guarantee, the government makes payment for the difference to the co-operative.

**New crop development fund.** Agriculture Canada is helping the private sector and universities in their efforts to broaden Canada's agricultural base. The objective is to help stimulate the development and acceptance of new crops and varieties, new uses for crops grown in Canada, and new more efficient production methods. It plays a prominent role in bridging the gap between basic research and commercial production.

Examples of complete and ongoing projects financed in part by the fund can be found in all regions of Canada. For example, a five-year project examined the introduction of new asparagus varieties and cultural practices across Canada. The Ontario strawberry processing research corporation has conducted feasibility trials on mechanical harvesting of strawberries in a joint project with growers, processors and the provincial government. The lakeland forage association in Alberta compared the production of forage using three major range improvement methods.

## 9.6 Provincial services

Provincial departments responsible for agriculture have regional offices and extension programs with qualified professional representatives working in rural centres to provide advice on farm management, farm labour, home design and home economics, education and development for 4-H and youth groups. Advice is available in veterinary services, livestock improvement and crop management.

Engineering services provide advice on rural water and sewer systems, farm machinery and such projects as irrigation and land drainage in the Prairies and in parts of Ontario.

Marketing activities are carried out to expand domestic and foreign markets and encourage increased food processing. Market development programs supplement those of the federal government.

In several provinces, loans, grants and services are available to farmers to enable them to upgrade or expand their operations. Services provided by New Brunswick include the potato seed farm at Bon Accord, marketing seminars for potato shippers and initiatives in the following areas: land improvement and soil conservation; market development; and accelerated adoption of



technology for the production and marketing of agricultural products. Quebec provides two institutes of agricultural technology; chemistry, animal pathology, and food analysis and assessment laboratories and research stations and services. Among the many services provided by Ontario are financial assistance programs for farmers, education and research programs at five colleges of agricultural technology, and veterinary laboratory services for livestock producers and veterinarians. The Prairie provinces all conduct substantial market development activities, and programs to assist farm families. In Saskatchewan, a broad range of programs and services are provided to the province's rural community of approximately 65,000 farms. Numerous assistance programs are in place including crop protection loans, fuel rebates, livestock cash advances and tax credits, and incentives for agricultural diversification.

## 9.7 Product and marketing controls

Numerous measures have been enacted by both federal and provincial governments over the years to encourage a productive agricultural sector. Originally emphasis was on production increases and control of pests and diseases. As production and farm specialization increased, problems in marketing began to emerge.

Grading procedures and standards were established to ensure quality but periodic price collapses were caused by bumper crops and intensified by the general inability of producers to bargain on an equitable basis with far fewer buyers.

Voluntary marketing co-operatives were organized to provide bargaining power to producers. All provinces eventually passed legislation for incorporating co-operatives, and most of them provided assistance. Federally, the Agricultural Products Co-operative Marketing Act provided price guarantees to producers willing to market their crops on a pooling-of-returns basis. More information on co-operative organizations is given in Chapter 17.

Co-operative marketing was initially successful, but the voluntary aspect was a weakness. In good times many members dropped out to make their own deals. Needed were marketing organizations with the legal power to control all producer output of certain products in certain areas. As a result, marketing control legislation was adopted providing for various types of boards, agencies and commissions.

### 9.7.1 Product standards

Federal and provincial departments of agriculture co-operate in enforcing quality standards for

various foods. Agriculture Canada has some control over size and types of containers used and the Department of Consumer and Corporate Affairs enforces regulations on weights and measures.

Standards related to health and sanitation in food handling are developed at all levels of government. Examples are provincial and municipal laws pertaining to milk pasteurization, slaughter house inspection and sanitary standards in restaurants. Federal inspection of all meat carcasses traded interprovincially is required by the Department of Agriculture; the Department of Health and Welfare has wide responsibility for food composition standards; and the Department of Consumer and Corporate Affairs has jurisdiction over advertising.

### 9.7.2 Marketing controls

The Agricultural Products Co-operative Marketing Act (RSC 1970, c.A-6) was passed in 1939 to assist orderly marketing by encouraging establishment of pools for selling the product at the optimal time of year to give the producer equal value for product of like grade and quality.

The act guarantees to the co-operative marketing pool the payment of the initial payment to producers and the processing, carrying and selling costs to a fixed maximum. The amount of the initial payment is set at the discretion of the Minister of Agriculture, taking into account current and estimated market prices. This act has enabled many farmers to market their crops at a fair return in an organized and systematic manner. All agricultural products, except wheat produced in the area under Canadian Wheat Board jurisdiction, are eligible for such marketing assistance.

**The Canadian Dairy Commission**, established in 1966, was the first new national marketing agency since the Canadian Wheat Board was created in 1935. The Commission has the power to stabilize the market by offering to buy major dairy products, butter and skim milk powder, at fixed prices and to package, process, store, ship, insure, import, export or sell or otherwise dispose of these and other dairy products purchased by it. The Commission may also pay subsidies to producers of manufacturing milk and cream. These payments supplement market returns to producers and keep consumer prices at reasonable levels. A producer is eligible for subsidy on shipments covered by his market share quota. The Commission administers an account to cover the cost of export marketing of dairy products. Money for this is collected by provincial milk marketing agencies from producers in all provinces except Newfoundland and remitted to the Canadian Dairy Commission.

A comprehensive milk marketing plan, to balance demand and supply and to generate funds for export assistance, was agreed to by the Canadian Dairy Commission and the milk marketing agencies of Ontario and Quebec in January 1971, establishing a market-sharing quota (MSQ) system for industrial milk and cream and that portion of milk, shipped by fluid producers, which is used for manufacturing purposes. Cream shippers in Quebec, Ontario and Prince Edward Island entered the plan in 1971. Producers in other provinces came under the program in the next three years. The arrangement now applies to all manufacturing milk and cream sold in Canada and provides that each producer receives returns related to the target support price for manufacturing shipments up to his market share. The target support price is achieved through the offer-to-purchase program which stabilizes markets, plus direct payments to producers. Producer returns for deliveries over market share are related to world prices for surplus dairy products.

**Producer marketing boards** were introduced during the 1930s to give agricultural producers legal authority under certain conditions to control marketing of their produce. The Natural Products Marketing Act of 1934 attempted to provide this power at the federal level but the courts ruled that the subject was outside federal jurisdiction. Subsequently the Natural Products Marketing (British Columbia) Act, 1936 was found to be within the powers of provincial governments and it has since been used as a model for marketing board legislation in all provinces.

The basic feature which enables marketing boards to control marketing is the compulsory aspect. A new board usually has to be approved by a majority vote of the producers of the product. Then all producers in the designated area are required by law to market their produce under authority of the board. A board's powers may involve negotiating a minimum price or may include setting production or marketing quotas, designating times and places for marketing, or carrying out other functions which may be considered necessary to ensure an orderly and equitable market.

The powers of a producer marketing board set up by provincial legislation are limited to trade within the province. The Agricultural Products Marketing Act (RSC 1970, c.A-7), passed in 1949, allows the federal government to delegate powers to a marketing board for interprovincial and export trade, similar to those it holds under provincial authority with respect to intraprovincial trade. Under this act, the Governor-in-Council grants authority to a provincial marketing board to

negotiate marketing and impose and collect levies on commodities traded outside the province — for the use of the board including the creation of reserves and equalization of returns.

Creation of national marketing agencies or boards was enabled by the federal Farm Products Marketing Agencies Act in January 1972. National agencies may be set up, when producers and provincial authorities desire it, for agricultural commodities which, owing to widespread production in Canada or for other reasons, cannot be effectively marketed under individual provincial boards.

**The National Farm Products Marketing Council (NFPMC)**, established by the Farm Products Marketing Agencies Act in 1972, advises the Minister of Agriculture on all matters relating to marketing agencies. It works with the agencies and provincial governments to promote more effective marketing of the regulated products in interprovincial and export trade. Agencies for eggs, turkeys and chickens have been in operation for many years and in December 1986, an agency for broiler hatching eggs was established. Membership of the Council includes producer, consumer, labour and agribusiness representatives.

## 9.8 Agricultural education

All regions of Canada have universities and colleges giving undergraduate and postgraduate programs in agricultural science and home economics. Ontario, Quebec and Saskatchewan have degree-granting veterinary colleges.

The Atlantic Veterinary College, a faculty of the University of Prince Edward Island, accepted its first class in September 1986, for the four-year doctor of veterinary medicine program. Students interested in a career in veterinary medicine can receive their preveterinary training at any college or university in the Atlantic provinces. An MSc program in veterinary medicine will be available in September 1987.

The Nova Scotia Agricultural College has degree-granting status and also provides the first two years in agricultural engineering with the final two years provided by other faculties in Eastern Canada. The college offers several technical programs associated with farming and agribusiness and a variety of vocational courses designed to update farmers and other industry personnel.

New Brunswick's community college offers two programs, one in French at Grand Falls and the other in English at Woodstock. They are technical programs designed to provide a basis for improving farming operations. The college also provides extension courses to producers to

keep them aware of new techniques and to help improve their operations.

In Quebec, McGill and Laval universities offer undergraduate and postgraduate programs in agricultural science. The veterinary faculty of the University of Montreal grants degrees. The education department offers a course in farm management and operation at four CEGEPs, courses are offered at Ste-Croix school of agriculture, and 15 school boards provide vocational training in agriculture at the secondary level. The Quebec agriculture, fisheries and food department also operates two institutes of agricultural technology.

In Ontario the education and research division of the Ontario agriculture and food ministry has six diploma-course programs at the Ontario Agricultural College, the University of Guelph, and at the colleges of agricultural technology at Alfred, Centralia, Kemptville, New Liskeard and Ridgeway.

The faculty of agriculture, University of Manitoba, offers a four-year course leading to a Bachelor of Science in agriculture and a two-year course leading to a diploma in agriculture. The university also has an extensive program for graduate studies in agricultural sciences.

The University of Saskatchewan's college of agriculture in Saskatoon offers three- and four-year degrees in agriculture and a two-year pre-veterinary course; the college of veterinary medicine offers a four-year degree. Kelsey Institute offers a two-year farm machinery course. Three other technical institutes and 15 regional community colleges offer numerous other agriculture-related courses of shorter duration throughout the province. High schools offer a credit course in agriculture in both regular and correspondence schools.

Alberta has three agricultural colleges, Fairview, Olds and Lakeland (Vermilion campus), offering a broad range of diploma programs. Under the module approach in courses, students may enter credit programs at a variety of times and locations. Non-credit short courses focus on specific agricultural activities. In addition, Lethbridge Community College offers a limited range of agricultural programs and courses.

A green certificate program, with on-the-job and classroom training for farm hands and farm managers, is a joint project of farmers, Alberta departments of agriculture and advanced education, the three agricultural colleges and Lethbridge Community College.

Several unusual college programs such as turf-grass management and floriculture attract students

from other provinces. The colleges participate in interprovincial and international agricultural education under exchange and world youth programs. Curricula have been expanded to meet both manpower needs and diversified interests of rural communities.

Public and private colleges in Alberta offer one or two years of university-transfer courses applicable toward degree programs in agriculture and veterinary medicine.

The University of Alberta's faculty of agriculture and forestry offers both undergraduate and graduate programs in agriculture. While the undergraduate program focuses on general aspects of agriculture, the masters and doctoral programs concentrate on agricultural specialties. The university is also noted for the research it conducts in support of the agricultural industry.

The University of British Columbia offers courses in agricultural specialties leading to a four-year bachelor of science degree in agriculture, and a graduate studies program. Fraser Valley College at Chilliwack offers a two-year diploma course in agricultural technology. It is designed to prepare students to become successful managers, operators or employees in all areas of the agriculture industry. The British Columbia Institute of Technology offers two-year agricultural courses in two areas — landscape horticulture and food processing. Many regional colleges offer individual agriculture-related courses, including Northern Lights College in Dawson Creek which offers an extensive practical agriculture course.

## 9.9 Canadian Forestry Service

The Canadian Forestry Service, which became part of Agriculture Canada in a recent reorganization, provides national leadership in the development, co-ordination and implementation of the federal policies and programs to enhance long-term economic, social and environmental benefits to Canadians from the forest sector.

Responsibilities of this Service include co-ordination of federal forest resource policies, provision of scientific and technological leadership, provision and analysis of national and international forestry statistics, development and certification of codes and standards for wood products performance, protection of our forests against pests and diseases, fostering the potential use of the forest resource for energy, contributing to the environmental objectives of the government of Canada and co-ordination of federal provincial forestry agreements.

**Sources**

- 9.1 The Canadian Federation of Agriculture.
- 9.2 Policy Branch, Agriculture Canada; Communications Branch, Agriculture Canada.
- 9.3 - 9.4 Agriculture and Natural Resources Division, Statistics Canada.
- 9.5 Communications Branch, Agriculture Canada; Policy Branch, Agriculture Canada; Grain Marketing Bureau, Department of External Affairs; Canadian Grain Commission; Canadian Livestock Feed Board; Farm Credit Corporation.
- 9.6 Supplied by the respective provincial agriculture departments.
- 9.7 Agriculture Development Branch, Agriculture Canada; Canadian Dairy Commission; National Farm Products Marketing Council.
- 9.8 Supplied by the respective provincial agriculture departments.
- 9.9 Communications Branch, Agriculture Canada.



TABLES

- .. not available

... not appropriate or not applicable

— nil or zero

-- too small to be expressed
- e estimate

p preliminary

r revised

certain tables may not add due to rounding

9.1 Net income of farm operators from farming operations, by item, 1982-86 (million dollars)

Item	1982	1983	1984	1985	1986
1. Cash receipts from farming operations	18,614.7	18,708.1	20,285.7	19,785.7	20,013.3
2. Income in kind	269.6	260.5	265.8	251.0	265.3
3. Supplementary payments	175.0	8.1	50.3	149.3	366.3
4. Realized gross income (1 + 2 + 3)	19,059.3	18,976.7	20,601.9	20,186.0	20,644.9
5. Operating and depreciation charges	15,581.6	15,661.7	16,250.4	16,274.5	15,778.8
6. Realized net income (4 - 5)	3,477.7	3,315.0	4,351.5	3,911.5	4,866.1
7. Value of inventory changes	4.7	- 614.8	- 968.2	419.6	974.1
8. Total gross income (4 + 7)	19,064.0	18,361.9	19,633.7	20,605.6	21,619.1
9. Total net income (8 - 5)	3,482.4	2,700.2	3,383.3	4,331.1	5,840.2

9.2 Net income of farm operators from farming operations, by province, 1982-86 (million dollars)

Province	1982	1983	1984	1985	1986
Newfoundland	7.7	7.8	10.9	10.3	9.9
Prince Edward Island	30.0	40.7	56.3	36.1	50.6
Nova Scotia	48.7	44.9	61.8	70.4	79.8
New Brunswick	44.6	39.7	61.4	52.9	61.2
Quebec	642.2	591.2	834.4	927.0	1,066.4
Ontario	714.9	898.1	1,105.5	977.2	1,421.6
Manitoba	220.2	248.7	353.2	365.3	503.1
Saskatchewan	986.7	753.6	1,048.5	699.5	738.8
Alberta	629.6	557.7	641.2	541.2	720.1
British Columbia	152.9	132.7	178.3	231.6	214.6
Canada	3,477.7	3,315.0	4,351.5	3,911.5	4,866.1

9.3 Cash receipts from farming operations, by province, 1982-86 (million dollars)

Province	1982	1983	1984	1985	1986
Newfoundland	35.5	35.8	41.4	43.1	45.2
Prince Edward Island	164.2	175.8	196.0	177.9	189.9
Nova Scotia	232.5	234.7	256.8	258.3	267.6
New Brunswick	198.7	197.1	227.7	224.0	226.4
Quebec	2,799.4	2,736.4	3,055.1	3,104.9	3,226.8
Ontario	4,858.9	4,995.7	5,325.9	5,156.9	5,457.9
Manitoba	1,703.7	1,769.7	1,950.7	1,995.3	2,073.6
Saskatchewan	4,027.6	3,965.0	4,354.0	4,101.3	4,130.3
Alberta	3,825.4	3,711.1	3,958.6	3,847.4	3,758.9
British Columbia	943.8	895.0	969.7	1,025.8	1,003.1
Canada	18,789.7	18,716.2	20,336.0	19,934.9	20,379.6

## 9.4 Cash receipts from farming operations, by source, 1982-86 (million dollars)

Item	1982	1983	1984	1985	1986
Crops					
Wheat	3,561.1	3,743.1	3,758.5	2,501.5	2,452.1
Wheat, Canadian Wheat Board payments	458.2	510.6	440.3	569.9	369.5
Oats	54.9	55.7	64.3	54.3	49.5
Oats, Canadian Wheat Board payments	0.5	2.1	1.9	1.0	1.5
Barley	819.9	827.8	666.4	535.0	741.3
Barley, Canadian Wheat Board payments	108.2	86.1	29.2	145.3	44.8
Western Grain Stabilization payment	—	—	222.9	521.8	858.7
Crop insurance payments	224.6	361.7	457.1	603.8	553.6
Canadian Wheat Board cash advances	305.8	297.1	237.4	317.4	646.9
Canadian Wheat Board cash advance repayments	-303.1	-305.6	-291.8	-189.4	-462.4
Deferred grain receipts	-706.5	-837.4	-791.5	-496.0	-430.9
Liquidation of deferred grain receipts	823.5	706.5	837.4	791.5	496.0
Rye	59.5	67.2	56.7	30.4	21.4
Flaxseed	119.7	170.3	156.5	192.8	138.0
Canola/rapeseed	607.5	736.5	940.9	899.6	681.5
Soybeans	198.8	243.2	209.2	231.7	240.3
Corn	417.9	597.9	574.9	596.9	444.2
Sugar beets	33.8	45.4	31.3	12.3	17.7
Potatoes	257.5	280.4	311.3	271.3	285.4
Fruits	270.4	269.9	260.3	305.3	266.9
Vegetables	450.3	463.0	518.9	543.9	566.3
Floriculture and nursery	290.4	303.4	352.8	369.1	401.3
Tobacco	395.4	290.5	390.2	150.4	447.9
Other crops	270.1	266.3	411.8	460.4	342.8
Total, crops	8,718.3	9,181.5	9,846.8	9,420.1	9,175.0
Livestock and products					
Cattle and calves	3,454.1	3,411.0	3,544.6	3,584.9	3,593.8
Hogs	1,953.5	1,713.5	1,888.4	1,823.3	2,117.7
Sheep and lambs	24.9	24.6	29.2	29.7	34.3
Dairy products	2,556.3	2,443.9	2,697.1	2,719.1	2,804.6
Poultry	773.5	766.6	889.3	901.4	942.6
Eggs	462.7	483.2	511.9	508.5	502.2
Other livestock and products	173.7	173.1	191.1	187.5	184.3
Total, livestock and products	9,398.8	9,015.9	9,751.4	9,754.5	10,179.4
Forest and maple products	92.0	98.4	99.6	116.3	137.0
Dairy supplementary payments	274.4	265.6	280.8	282.1	277.0
Deficiency payments	28.1	28.1	138.5	16.2	31.3
Provincial income stabilization program	103.1	118.5	168.5	196.5	213.7
Total, cash receipts (excluding supplementary payments)	18,614.7	18,708.1	20,285.7	19,785.7	20,013.3
Supplementary payments	175.0	8.1	50.3	149.3	366.3
Total, cash receipts	18,789.7	18,716.2	20,336.0	19,934.9	20,379.6

## 9.5 Harvested area and production of field crops, by province, 1983-86

Field crop and province	Area ('000 ha)				Production ('000 t)			
	1983	1984	1985	1986	1983	1984	1985	1986
Wheat								
Prince Edward Island	2	3	4	4	7	11	12	14
Nova Scotia	2	2	2	3	6	8	6	8
New Brunswick	4	5	5	6	10	11	18	18
Quebec	30	37	50	60	82	120	175	185
Ontario								
Winter wheat	229	206	212	253	776	797	954	925
Spring wheat	11	11	12	28	27	31	42	75
Manitoba	1 862	1 801	1 942	1 983	3 410	3 743	5 226	4 501
Saskatchewan	8 377	8 094	8 377	8 782	15 213	11 485	12 873	18 645
Alberta	3 115	2 934	3 056	3 035	6 804	4 858	4 844	7 348
British Columbia	65	65	69	63	169	136	103	128
Total, wheat	13 697	13 158	13 729	14 217	26 505	21 199	24 252	31 851

# 9.5 Harvested area and production of field crops, by province, 1983-86 (continued)

Field crop and province	Area ('000 ha)				Production ('000 t)			
	1983	1984	1985	1986	1983	1984	1985	1986
Oats								
Prince Edward Island	13	12	11	12	27	27	27	31
Nova Scotia	8	8	8	7	17	18	16	17
New Brunswick	16	15	15	15	30	27	36	31
Quebec	170	165	150	125	300	360	360	260
Ontario	134	121	129	117	234	277	332	273
Manitoba	223	231	223	243	401	447	555	601
Saskatchewan	344	344	364	405	648	478	663	941
Alberta	465	486	486	607	1 049	987	972	1 696
British Columbia	28	24	24	24	67	49	37	57
Total, oats	1 400	1 406	1 411	1 555	2 773	2 670	2 997	3 906
Barley								
Prince Edward Island	20	21	24	26	49	55	71	85
Nova Scotia	5	5	5	6	12	14	11	16
New Brunswick	6	7	8	10	16	15	24	28
Quebec	132	135	155	195	320	400	520	580
Ontario	212	192	210	235	526	615	755	762
Manitoba	708	728	749	627	1 589	1 938	2 526	1 872
Saskatchewan	1 113	1 295	1 416	1 457	2 417	2 460	3 636	4 006
Alberta	2 064	2 104	2 125	2 307	5 095	4 638	4 768	7 446
British Columbia	73	79	81	89	185	161	131	231
Total, barley	4 332	4 566	4 773	4 952	10 209	10 296	12 443	15 026
Fall rye								
Nova Scotia	2	2	2	1	4	6	6	4
Quebec	3	4	4	4	4	5	7	8
Ontario	36	35	30	30	78	81	76	66
Manitoba	83	87	80	37	160	193	170	72
Saskatchewan	170	138	142	142	315	203	180	244
Alberta	87	61	69	85	185	112	99	208
British Columbia	9	4	4	4	20	9	8	8
Total, fall rye	390	330	331	303	766	609	546	610
Spring rye								
Manitoba	2	2	1	1	3	3	2	2
Saskatchewan	20	20	20	20	33	27	25	31
Alberta	16	18	20	16	25	25	25	28
Total, spring rye	38	40	41	38	61	55	52	60
All rye								
Nova Scotia	2	2	2	1	4	6	6	4
Quebec	3	4	4	4	5	5	7	8
Ontario	36	35	30	30	78	81	76	66
Manitoba	85	89	81	38	163	196	172	74
Saskatchewan	190	158	162	162	348	230	205	275
Alberta	103	79	89	101	210	137	124	236
British Columbia	9	4	4	4	20	9	8	8
Total, all rye	428	370	372	341	828	664	598	670
Peas								
Manitoba	41	45	41	65	68	82	101	112
Saskatchewan	18	24	28	49	33	35	54	87
Alberta	5	7	8	11	15	16	15	25
Total, peas	64	76	77	124	115	133	170	224
Beans								
Ontario	28	30	36	43	38	45	58	52
Soybeans								
Ontario	364	417	425	405	735	944	1 048	988
Buckwheat								
Quebec	10	8	9	12	12	11	14	18
Manitoba	36	28	12	22	24	13	11	20
Total, buckwheat	46	36	21	34	36	24	25	38
Mixed grains								
Prince Edward Island	34	33	32	30	88	86	87	90
Nova Scotia	2	2	2	2	7	6	4	4
New Brunswick	1	1	1	1	3	2	3	2

## 9.5 Harvested area and production of field crops, by province, 1983-86 (continued)

Field crop and province	Area ('000 ha)				Production ('000 t)			
	1983	1984	1985	1986	1983	1984	1985	1986
Mixed grains (continued)								
Quebec	55	53	50	45	130	150	160	120
Ontario	277	267	251	223	613	778	790	631
Manitoba	49	51	51	45	98	118	139	112
Saskatchewan	28	32	53	53	57	49	98	123
Alberta	61	57	65	65	155	133	143	204
British Columbia	4	6	8	8	12	14	16	20
Total, mixed grains	511	503	513	471	1 162	1 336	1 441	1 306
Flaxseed								
Manitoba	304	425	425	445	297	439	559	584
Saskatchewan	101	263	283	324	119	224	315	432
Alberta	24	32	32	36	28	31	28	51
Total, flaxseed	429	720	740	805	444	694	902	1 067
Rapeseed								
Ontario	7	11	20	34	7	21	41	67
Manitoba	384	486	405	425	397	544	635	590
Saskatchewan	850	1 295	1 174	1 052	1 066	1 429	1 542	1 497
Alberta	1 012	1 214	1 133	1 194	1 066	1 361	1 247	1 656
British Columbia	81	85	71	71	73	73	43	77
Total, rapeseed	2 334	3 091	2 803	2 776	2 609	3 428	3 508	3 887
Sunflower seed								
Manitoba	41	79	65	32	45	91	77	46
Saskatchewan	7	11	6	6	7	5	5	6
Total, sunflower seed	47	89	71	39	52	96	82	53
Mustard seed								
Manitoba	12	16	16	22	12	14	20	27
Saskatchewan	57	102	101	138	47	82	95	177
Alberta	26	22	22	25	25	17	14	30
Total, mustard seed	95	141	140	185	84	112	129	234
Shelled corn								
Nova Scotia	2	3	3	3	12	12	9	5
Quebec	182	220	245	260	975	1 350	1 550	1 270
Ontario	809	890	902	801	4 696	5 391	5 802	5 131
Manitoba	77	73	41	20	218	236	76	86
Alberta	5	6	7	4	32	34	36	22
Total, shelled corn	1 075	1 192	1 197	1 087	5 933	7 024	7 472	6 514
Potatoes								
Newfoundland	--	--	--	--	4	4	4	3
Prince Edward Island	28	29	30	28	794	866	799	810
Nova Scotia	2	2	2	2	36	39	36	37
New Brunswick	21	22	22	21	522	539	699	507
Quebec	18	19	19	20	295	410	460	420
Ontario	15	16	15	13	336	341	348	334
Manitoba	16	17	16	17	259	272	340	353
Saskatchewan	1	1	1	1	19	21	27	23
Alberta	8	8	8	9	200	212	218	269
British Columbia	4	4	4	3	91	95	99	94
Total, potatoes	113	118	117	114	2 556	2 799	3 030	2 850
Tame hay								
Newfoundland	3	3	3	4	13	14	14	16
Prince Edward Island	51	51	50	51	256	255	242	242
Nova Scotia	71	72	72	73	447	386	380	394
New Brunswick	70	70	69	70	297	343	370	323
Quebec	989	1 000	1 000	990	4 000	5 300	5 300	6 100
Ontario	1 040	1 040	1 048	1 072	6 715	7 115	7 140	8 165
Manitoba	526	526	546	587	2 177	2 087	2 177	3 084
Saskatchewan	708	728	728	728	2 631	2 087	2 177	2 722
Alberta	1 497	1 578	1 578	1 619	6 532	6 350	4 627	7 893
British Columbia	293	299	299	308	1 796	1 724	1 361	1 724
Total, tame hay	5 248	5 366	5 394	5 501	24 864	25 661	23 788	30 663
Fodder corn								
Prince Edward Island	2	2	2	1	59	45	45	36
Nova Scotia	3	3	3	3	101	81	71	76



### 9.5 Harvested area and production of field crops, by province, 1983-86 (concluded)

Field crop and province	Area ('000 ha)				Production ('000 t)			
	1983	1984	1985	1986	1983	1984	1985	1986
Fodder corn (continued)								
New Brunswick	2	1	1	1	49	48	37	27
Quebec	87	85	83	80	2 500	3 000	2 900	2 300
Ontario	243	227	214	202	6 202	6 537	6 076	5 806
Manitoba	20	18	18	16	308	245	290	327
Alberta	9	10	11	10	381	345	390	454
British Columbia	11	10	10	10	308	318	318	499
Total, fodder corn	377	356	342	324	9 908	10 619	10 127	9 525
Sugar beets								
Quebec	7	3	2	—	247	131	110	—
Manitoba	11	11	10	11	350	332	290	350
Alberta	13	13	—	12	570	463	—	595
Total, sugar beets	31	27	12	23	1 167	926	400	945

### 9.6 Harvested area and production of grain in the Prairie provinces

Grain	Harvested area ('000 ha)					
	1981	1982	1983	1984	1985	1986
Wheat	12 119	12 302	13 354	12 829	13 375	13 800
Oats	1 214	1 235	1 032	1 061	1 073	1 255
Barley	5 058	4 674	3 885	4 127	4 290	4 391
Rye	399	410	378	326	332	302
Flaxseed	465	631	429	720	740	805
Rapeseed	1 376	1 720	2 246	2 995	2 712	2 671
Production ('000 t)						
	1981	1982	1983	1984	1985	1986
Wheat	23 835	26 127	25 427	20 086	22 943	30 492
Oats	2 529	2 837	2 098	1 912	2 190	3 238
Barley	12 628	12 584	9 101	9 036	10 930	13 324
Rye	825	832	721	563	501	584
Flaxseed	467	752	444	694	902	1 067
Rapeseed	1 826	2 168	2 529	3 334	3 424	3 743

### 9.7 Stocks of Canadian grains, years ended July 31, 1983-86 (thousand tonnes)

Grain	1983					1984				
	In commercial storage	On farms	Total	Prairie provinces		In commercial storage	On farms	Total	Prairie provinces	
				On farms	In primary elevators				On farms	In primary elevators
Wheat	7 973	2 010	9 983	1 950	4 146	7 455	1 735	9 190	1 680	3 354
Oats	175	995	1 170	810	97	125	570	695	460	62
Barley	1 904	3 225	5 129	3 035	1 036	891	1 080	1 971	920	262
Rye	431	220	651	220	299	326	105	431	105	214
Flaxseed	347	118	465	118	224	130	25	155	25	69
Rapeseed	446	40	486	40	149	105	15	120	15	25
1985										
	In commercial storage	On farms	Total	Prairie provinces		In commercial storage	On farms	Total	Prairie provinces	
				On farms	In primary elevators				On farms	In primary elevators
Wheat	6 518	1 080	7 598	1 050	1 791	7 809	770	8 579	740	3 773
Oats	124	595	719	340	50	171	635	806	450	102
Barley	1 291	865	2 156	690	492	2 210	1 095	3 305	810	945
Rye	233	150	383	150	163	142	160	302	160	95
Flaxseed	119	25	144	25	67	208	75	283	75	97
Rapeseed	375	95	470	95	216	675	270	945	270	343
1986										
	In commercial storage	On farms	Total	Prairie provinces		In commercial storage	On farms	Total	Prairie provinces	
				On farms	In primary elevators				On farms	In primary elevators
Wheat	6 518	1 080	7 598	1 050	1 791	7 809	770	8 579	740	3 773
Oats	124	595	719	340	50	171	635	806	450	102
Barley	1 291	865	2 156	690	492	2 210	1 095	3 305	810	945
Rye	233	150	383	150	163	142	160	302	160	95
Flaxseed	119	25	144	25	67	208	75	283	75	97
Rapeseed	375	95	470	95	216	675	270	945	270	343

### 9.8 Exports of all wheat and wheat flour, by country of final destination, crop years 1983-84 to 1985-86 (thousand tonnes)

Region	1983-84	1984-85	1985-86
Western Europe	2 238.3	1 302.0	1 536.2
United Kingdom	955.1	633.1	701.7
Italy	742.3	221.0	367.0
Eastern Europe	6 890.9	6 284.6	5 506.0
Poland	52.0	90.9	23.0
USSR	6 760.9	6 019.1	5 219.5
Middle East	2 262.8	1 990.8	1 393.6
Africa	1 050.3	716.3	809.1
Algeria	813.3	507.8	491.9
Asia	6 317.9	4 740.5	5 535.6
People's Republic of China	3 513.9	2 844.4	2 614.5
South America	1 501.2	1 485.1	1 420.7
Brazil	1 363.0	1 152.1	986.2
Central America and Antilles	1 432.7	853.0	1 200.1
Cuba	1 052.8	779.4	1 136.6
North America	70.0	169.5	281.3
Total	21 764.3	17 541.8	17 682.7

### 9.9 Supply and disposition of Canadian grain, crop years ended July 31, 1984-86 (thousand tonnes)

Item	Wheat	Oats	Barley	Rye	Flaxseed	Rapeseed
Crop year 1983-84						
Carryover, Aug. 1, 1983	9 983.3	1 169.7	5 128.5	650.9	464.9	486.4
Production in 1983	26 505.1	2 773.1	10 209.0	827.5	443.9	2 609.3
Imports	—	0.2	0.3	0.1	—	5.8
Total, supply	36 488.4	3 943.0	15 337.8	1 478.5	908.8	3 101.5
Exports <sup>1</sup>	21 764.8	121.1	5 536.4	747.4	626.7	1 497.6
Domestic use <sup>2</sup>	5 533.9	3 126.9	7 830.5	300.1	126.7	1 484.3
Total, disposition	36 488.4	3 943.0	15 337.8	1 478.5	908.8	3 101.5
Carryover, July 31, 1984	9 189.7	695.0	1 970.9	431.0	155.4	119.6
Crop year 1984-85						
Carryover, Aug. 1, 1984	9 189.7	695.0	1 970.9	431.0	155.4	119.6
Production in 1984	21 199.4	2 669.9	10 295.9	663.8	693.5	3 427.9
Imports	—	1.0	83.9	—	—	6.0
Total, supply	30 389.1	3 365.9	12 350.7	1 094.8	848.9	3 553.9
Exports <sup>1</sup>	17 541.9	18.0	2 780.7	375.7	560.0	1 456.0
Domestic use <sup>2</sup>	5 250.1	2 728.9	7 414.0	336.1	144.5	1 627.9
Total, disposition	30 389.1	3 365.9	12 350.7	1 094.8	848.9	3 553.9
Carryover, July 31, 1985	7 598.0	618.8	2 155.9	382.7	144.2	470.1
Crop year 1985-86						
Carryover, Aug. 1, 1985	7 598.0	618.8	2 155.9	382.7	144.2	470.1
Production in 1985	24 252.3	2 997.1	12 443.3	598.0	901.9	3 507.8
Imports	—	—	6.0	—	—	11.0
Total, supply	31 850.3	3 615.9	14 605.3	981.0	1 046.1	3 988.9
Exports <sup>1</sup>	17 683.0	44.5	3 795.0	276.0	614.0	1 456.0
Domestic use <sup>2</sup>	5 598.3	2 765.1	7 505.3	403.0	148.9	1 587.9
Total, disposition	31 850.3	3 615.9	14 605.3	981.0	1 046.1	3 988.9
Carryover, July 31, 1986	8 569.0	806.0	3 305.0	302.0	283.0	945.1

<sup>1</sup> Includes wheat flour in terms of wheat, rolled oats and oatmeal in terms of oats, and malt in terms of barley.

<sup>2</sup> Includes human food, seed requirements, industrial use, loss in handling and animal feed.

### 9.10 Licensed grain and oilseed storage capacity and grain in store, crop years 1984-86

Grain storage position	Licensed storage capacity	Canadian grain <sup>1</sup> in licensed storage			Proportion of licensed storage capacity occupied		
	Aug. 1, 1984 '000 t	July 31, 1984 '000 t	April 2, 1985 '000 t	July 31, 1985 '000 t	July 31, 1984 %	April 2, 1985 %	July 31, 1985 %
Primary elevators	8 006	3 985	4 858	2 779	49.8	60.7	34.7
Process elevators	544	133	156	150	24.5	28.7	27.6
Terminal <sup>2</sup>	3 517	1 863	2 322	2 231	53.0	66.0	63.4
Other <sup>3</sup>	3 466	1 433	1 153	2 207	41.3	33.3	63.7
Total <sup>4</sup>	15 533	7 414	8 489	7 367	47.7	54.7	47.4

	Licensed storage capacity	Canadian grain <sup>1</sup> in licensed storage			Proportion of licensed storage capacity occupied		
	Aug. 1, 1985 '000 t	July 31, 1985 '000 t	April 1, 1986 '000 t	July 31, 1986 '000 t	July 31, 1985 %	April 1, 1986 %	July 31, 1986 %
Primary elevators	7 895	2 779	4 196	5 355	35.2	53.1	67.6
Process elevators	508	150	145	184	29.5	28.5	36.2
Terminal <sup>2</sup>	3 664	2 231	2 307	2 449	60.9	63.0	66.8
Other <sup>3</sup>	3 437	2 207	1 232	1 884	64.2	35.8	54.8
Total <sup>4</sup>	15 503	7 367	7 880	9 872	47.5	50.8	63.7

<sup>1</sup> Wheat, oats, barley, rye, flaxseed and rapeseed.

<sup>2</sup> Includes Thunder Bay, Churchill and the Pacific Coast ports and interior terminals at Moose Jaw, Saskatoon, Edmonton, Calgary and Lethbridge.

<sup>3</sup> Transfer elevators.

<sup>4</sup> Total stocks are those in licensed storage and do not include stocks in transit, aboard ships or in the railway system.

### 9.11 Wheat milled and flour produced, crop years 1981-82 to 1985-86 (thousand tonnes)

Crop year	Wheat milled for flour	Wheat flour production
1981-82	2 369	1 756
1982-83	2 323	1 718
1983-84	2 459	1 815
1984-85	2 412	1 785
1985-86	2 466	1 835
Av. 1981-82 - 1985-86	2 406	1 782

### 9.12 Area, yield, production and prices of principal field crops, 1982-86

Crop and year	Area '000 ha	Yield kg per ha	Production '000 t	Average price \$ per t	Total value <sup>1</sup> \$'000
Wheat					
1982	12 533	2 135	26 737	169.00	4,516,743
1983	13 697	1 935	26 505	176.00	4,660,778
1984	13 158	1 610	21 199	172.00	3,636,468
1985	13 729	1 770	24 252	..	..
1986	14 217	2 240	31 849	..	..
Oats					
1982	1 613	2 255	3 637	89.00	325,276
1983	1 400	1 980	2 773	111.00	308,062
1984	1 406	1 900	2 770	117.00	313,276
1985	1 411	2 120	2 997	..	..
1986	1 555	2 510	3 906	..	..

## 9.12 Area, yield, production and prices of principal field crops, 1982-86 (concluded)

Crop and year	Area '000 ha	Yield kg per ha	Production '000 t	Average price \$ per t	Total value <sup>1</sup> \$ '000
Barley					
1982	5 149	2 710	13 965	97.00	1,355,666
1983	4 333	2 355	10 209	121.00	1,232,633
1984	4 566	2 250	10 296	125.00	1,284,541
1985	4 773	2 610	12 443	..	..
1986	4 952	3 030	15 026	..	..
Rye					
1982	458	2 035	933	87.00	81,115
1983	428	1 930	828	109.00	89,960
1984	370	1 790	664	97.00	64,488
1985	372	1 610	598	..	..
1986	341	1 970	670	..	..
Mixed grains					
1982	531	2 795	1 484	107.00	158,170
1983	511	2 275	1 162	132.00	153,500
1984	503	2 659	1 366	138.00	184,440
1985	513	2 811	1 441	..	..
1986	383	3 408	1 306	..	..
Flaxseed					
1982	631	1 192	752	246.00	185,136
1983	429	1 034	444	323.00	143,352
1984	720	963	694	316.00	219,076
1985	740	1 218	902	..	..
1986	755	1 412	1 067	..	..
Rapeseed					
1982	1 777	1 252	2 225	272.00	604,452
1983	2 334	1 118	2 609	381.00	995,266
1984	3 091	1 109	3 428	351.00	1,202,468
1985	2 803	1 251	3 508	..	..
1986	2 633	1 476	3 887	..	..
Corn for grain					
1982	1 107	5 883	6 513	117.00	761,714
1983	1 075	5 517	5 933	157.00	932,268
1984	1 192	5 894	7 024	140.00	983,723
1985	1 197	6 245	7 472	..	..
1986	995	6 550	6 514	..	..
Potatoes					
1982	113	24 524	2 781	87.67	243,795
1983	113	22 614	2 556	135.70	346,851
1984	118	23 804	2 799	106.56	298,219
1985	122	24 787	3 024	..	..
1986	116	24 534	2 846	..	..
Tame hay					
1982	5 118	4 759	24 355	61.70	1,501,514
1983	5 248	4 738	24 864	66.10	1,642,652
1984	5 366	4 782	25 661	70.60	1,810,799
1985	5 394	4 410	23 788	..	..
1986	5 439	5 638	30 663	..	..

<sup>1</sup> Gross value of farm production; does not represent cash income from sales.

## 9.13 Livestock slaughtered at federally inspected establishments

Year	Cattle	Calves	Sheep	Pigs
1979	2,954,318	324,890	92,825	11,030,840
1980	3,059,483	337,331	114,840	12,927,452
1981	3,196,887	365,760	175,868	12,844,300
1982	3,293,947	411,826	201,995	12,701,317
1983	3,241,682	439,622	227,801	12,905,646
1984	3,116,220	479,499	233,431	12,999,374
1985	3,159,307	455,247	196,803	13,521,494
1986	3,118,401	447,840	174,278	13,515,082



## 9.14 Production and apparent consumption of poultry meat<sup>1</sup>

Item	1983			1984		
	Fowl and chickens	Turkeys	Total	Fowl and chickens	Turkeys	Total
Net production (t)	430 201	96 792	526 993	460 762	97 721	558 483
Total supply (t)	481 337	111 792	593 129	510 297	109 379	619 676
Domestic consumption (t)	469 608	101 037	570 645	492 551	99 379	591 930
Per capita consumption (kg)	18.8	4.1	22.9	19.6	4.0	23.6
	1985			1986		
	Fowl and chickens	Turkeys	Total	Fowl and chickens	Turkeys	Total
Net production (t)	505 474	102 442	607 916	523 571	104 900	628 471
Total supply (t)	553 129	114 447	667 576	570 694	121 257	691 951
Domestic consumption (t)	534 895	101 368	636 263	556 221	107 233	663 454
Per capita consumption (kg)	21.1	4.0	25.1	21.7	4.2	25.9

<sup>1</sup> Eviscerated weight.

## 9.15 Production and utilization of milk, by province

Province	1983				1984			
	Farm sales of milk and cream			Total milk production (kL)	Farm sales of milk and cream			Total milk production (kL)
	Fluid <sup>1</sup> (kL)	Industrial purposes			Fluid <sup>1</sup> (kL)	Industrial purposes		
		Milk <sup>1</sup> (kL)	Cream <sup>2</sup> (kL)			Milk <sup>1</sup> (kL)	Cream <sup>2</sup> (kL)	
Newfoundland	11 990	—	—	11 990	13 218	—	—	13 218
Prince Edward Island	13 223	76 838	7 171	97 232	13 162	78 095	6 946	98 203
Nova Scotia	114 121	50 630	5 790	170 541	114 289	57 861	5 732	177 882
New Brunswick	70 077	50 789	7 359	128 225	70 320	57 685	6 573	134 578
Quebec	626 527	2 182 374	502	2 809 403	636 387	2 333 077	422	2 969 886
Ontario	986 826	1 384 174	92 867	2 463 867	980 534	1 403 232	91 570	2 475 336
Manitoba	108 168	150 659	33 328	292 155	109 197	156 778	31 338	297 313
Saskatchewan	102 774	98 322	23 786	224 882	104 170	107 891	20 979	233 040
Alberta	258 543	235 093	33 942	527 578	254 032	247 768	30 625	532 425
British Columbia	303 938	163 573	758	468 269	302 919	176 394	603	479 916
Canada	2 596 187	4 392 452	205 503	7 194 142	2 598 228	4 618 781	194 788	7 411 797
	1985				1986			
	Farm sales of milk and cream			Total milk production (kL)	Farm sales of milk and cream			Total milk production (kL)
	Fluid <sup>1</sup> (kL)	Industrial purposes			Fluid <sup>1</sup> (kL)	Industrial purposes		
		Milk <sup>1</sup> (kL)	Cream <sup>2</sup> (kL)			Milk <sup>1</sup> (kL)	Cream <sup>2</sup> (kL)	
Newfoundland	15 194	—	—	15 194	17 026	—	—	17 026
Prince Edward Island	13 732	74 255	6 573	94 560	13 903	79 042	7 192	100 137
Nova Scotia	115 796	52 504	5 676	173 976	116 012	59 469	6 110	181 591
New Brunswick	69 467	57 122	5 880	132 469	70 286	57 556	5 485	133 327
Quebec	649 240	2 182 632	297	2 832 169	687 898	2 151 957	242	2 840 097
Ontario	978 352	1 385 761	96 447	2 460 560	995 988	1 346 494	96 205	2 438 687
Manitoba	110 811	147 466	31 514	289 791	114 028	147 843	29 446	291 317
Saskatchewan	98 082	97 095	18 168	213 345	97 484	110 503	16 363	224 350
Alberta	255 677	286 526	25 153	567 356	257 950	309 522	22 243	589 715
British Columbia	304 312	178 588	444	483 344	311 680	176 182	976	488 838
Canada	2 610 663	4 461 949	190 152	7 262 764	2 682 255	4 438 568	184 262	7 305 085

<sup>1</sup> Expressed as actual volume, regardless of butterfat content.

<sup>2</sup> Farm separated cream expressed in terms of milk equivalent (3.6 kg/hL butterfat).

9.16 Cash receipts<sup>1</sup> from milk and cream, sold off farms, by province (thousand dollars)

Year and province	Farm sales of milk and cream			Total	Supplementary payments <sup>3</sup>	Total cash receipts
	Fluid purposes	Industrial purposes				
		Delivered as milk	Delivered as cream <sup>2</sup>			
1983						
Newfoundland	7,327	—	—	7,327	—	7,327
Prince Edward Island	5,495	19,410	1,203	26,108	5,188	31,296
Nova Scotia	52,524	14,308	957	67,789	3,265	71,054
New Brunswick	29,890	14,110	1,041	45,041	3,596	48,637
Quebec	274,207	604,034	78	878,319	129,468	1,007,787
Ontario	452,357	380,409	15,038	847,804	87,454	935,258
Manitoba	46,934	46,131	4,733	97,798	10,936	108,734
Saskatchewan	39,187	25,095	3,492	67,774	7,313	75,087
Alberta	114,626	69,347	4,958	188,931	18,232	207,163
British Columbia	154,980	61,906	114	217,000	143	217,143
Canada	1,177,527	1,234,750	31,614	2,443,891	265,595	2,709,486
1984						
Newfoundland	8,534	—	—	8,534	—	8,534
Prince Edward Island	5,586	21,851	1,271	28,708	5,363	34,071
Nova Scotia	55,501	17,376	1,007	73,884	3,892	77,776
New Brunswick	32,724	16,728	1,040	50,492	3,826	54,318
Quebec	292,673	704,639	72	997,384	139,111	1,136,495
Ontario	479,541	417,567	15,695	912,803	90,238	1,003,041
Manitoba	51,565	48,833	4,528	104,926	11,246	116,172
Saskatchewan	41,601	30,762	3,156	75,519	7,595	83,114
Alberta	117,793	94,284	4,520	216,597	19,500	236,097
British Columbia	158,881	69,250	91	228,222	19	228,241
Canada	1,244,399	1,421,290	31,380	2,697,069	280,790	2,977,859
1985						
Newfoundland	9,449	—	—	9,449	—	9,449
Prince Edward Island	5,938	20,740	1,241	27,919	5,090	33,009
Nova Scotia	59,109	14,679	1,026	74,814	3,502	78,316
New Brunswick	34,050	16,870	944	51,864	3,720	55,584
Quebec	312,269	674,023	58	986,350	133,344	1,119,694
Ontario	503,521	419,115	16,975	939,611	90,018	1,029,629
Manitoba	54,817	42,894	4,659	102,370	10,935	113,305
Saskatchewan	44,444	29,132	2,797	76,373	6,979	83,352
Alberta	123,873	87,995	3,793	215,661	18,590	234,251
British Columbia	161,940	72,722	69	234,731	9,894	244,625
Canada	1,309,410	1,378,170	31,562	2,719,142	282,072	3,001,214
1986						
Newfoundland	11,001	—	—	11,001	—	11,001
Prince Edward Island	6,272	22,937	1,343	30,552	5,382	35,934
Nova Scotia	61,492	17,297	1,103	79,892	3,945	83,837
New Brunswick	35,278	17,564	901	53,743	3,672	57,415
Quebec	333,844	677,975	46	1,011,865	131,233	1,143,098
Ontario	518,166	431,247	16,426	965,839	85,815	1,051,654
Manitoba	56,474	45,891	4,417	106,782	10,628	117,410
Saskatchewan	51,382	35,539	2,509	89,430	7,206	96,636
Alberta	124,035	96,202	3,516	223,753	18,877	242,630
British Columbia	161,800	69,780	157	231,737	10,227	241,964
Canada	1,359,744	1,414,432	30,418	2,804,594	276,985	3,081,579

<sup>1</sup> Haulage, levies and board fees have been deducted where applicable.<sup>2</sup> Farm separated cream is expressed as milk equivalent (3.6 kg/hL butterfat).<sup>3</sup> Receipts and supplementary payments are considered as accruing to milk and cream for the month in which the payment is made.

# 9.17 Production of butter and cheese, by province, 1983-86 (tonnes)

Province	1983				1984			
	Butter			Cheese factory <sup>1,2</sup>	Butter			Cheese factory <sup>1,2</sup>
	Creamery	Whey	Total		Creamery	Whey	Total	
Prince Edward Island	1 474	95	1 569	<sup>3</sup>	1 464	81	1 545	<sup>3</sup>
Nova Scotia	1 336	39	1 375	6 481 <sup>4</sup>	1 621	42	1 663	5 727 <sup>4</sup>
New Brunswick	842	—	842	<sup>3</sup>	1 508	—	1 508	<sup>3</sup>
Quebec	50 009	2 549	52 558	71 164	52 462	2 431	54 893	74 557
Ontario	31 720	1 492	33 212	82 530	31 815	1 453	33 268	87 207
Manitoba	3 857	—	3 857	6 702 <sup>5</sup>	3 847	—	3 847	6 906 <sup>5</sup>
Saskatchewan	4 659	—	4 659	<sup>5</sup>	5 117	—	5 117	<sup>5</sup>
Alberta	7 811	45	7 856	7 795 <sup>5</sup>	8 272	96	8 368	8 684 <sup>5</sup>
British Columbia	1 877	—	1 877	<sup>5</sup>	1 682	—	1 682	<sup>5</sup>
Canada	103 585	4 220	107 805	182 990	107 788	4 103	111 891	192 437

	1985				1986			
	Butter			Cheese factory <sup>1,2</sup>	Butter			Cheese factory <sup>1,2</sup>
	Creamery	Whey	Total		Creamery	Whey	Total	
Prince Edward Island	1 030	98	1 128	<sup>3</sup>	1 342	80	1 422	<sup>3</sup>
Nova Scotia	1 476	44	1 520	5 705 <sup>4</sup>	1 695	35	1 730	5 682 <sup>4</sup>
New Brunswick	2 732	—	2 732	<sup>3</sup>	2 601	—	2 601	<sup>3</sup>
Quebec	42 742	3 447	46 188	86 052	45 271	2 811	48 082	97 047
Ontario	30 215	1 448	31 663	92 008	30 369	1 003	31 372	91 094
Manitoba	3 746 <sup>5</sup>	—	3 746 <sup>5</sup>	6 465 <sup>5</sup>	3 859 <sup>5</sup>	—	3 859 <sup>5</sup>	5 859 <sup>5</sup>
Saskatchewan	<sup>5</sup>	<sup>5</sup>	<sup>5</sup>	<sup>5</sup>	<sup>5</sup>	<sup>5</sup>	<sup>5</sup>	<sup>5</sup>
Alberta	6 703 <sup>5</sup>	<sup>5</sup>	<sup>5</sup>	11 459 <sup>5</sup>	7 323 <sup>5</sup>	<sup>5</sup>	<sup>5</sup>	11 751 <sup>5</sup>
British Columbia	<sup>5</sup>	<sup>5</sup>	<sup>5</sup>	<sup>5</sup>	<sup>5</sup>	<sup>5</sup>	<sup>5</sup>	<sup>5</sup>
Canada	94 882	5 088	99 969	212 693	97 800	4 075	101 875	225 868

<sup>1</sup> Factory-made cheese includes cheddar and other cheese made from milk and cream. Amounts for other cheese are included in Quebec, Ontario and Alberta figures, but, as fewer than three firms reported in the other provinces, data cannot be included except in the Canada total.  
<sup>2</sup> Skim and whey cheese are included in 1985.  
<sup>3</sup> Included with Nova Scotia.  
<sup>4</sup> Includes Prince Edward Island and New Brunswick.  
<sup>5</sup> Confidential.

# 9.18 Apparent domestic consumption of specified dairy products

Product	Total consumption (t)				Per capita consumption (kg)			
	1983	1984	1985	1986	1983	1984	1985	1986
Creamery butter	108 647	106 842	102 041	102 189	4.36	4.25	4.02	3.99
Cheddar cheese	91 837	97 170	103 213	107 043	3.69	3.86	4.07	4.18
Process cheese	75 549	71 668	70 509	68 056	3.03	2.85	2.78	2.66
Other cheese	101 892	110 092	119 737	134 725	4.09	4.38	4.72	5.26
Cottage cheese (prod.)	30 378	30 696	34 092	32 791	1.22	1.22	1.34	1.28
Skim milk powder	43 699	63 059	46 022	45 330	1.75	2.51	1.81	1.77
Concentrated milk <sup>1</sup>	77 337	39 645	64 709	44 101	3.11	1.58	2.55	1.72
Partly skimmed concentrated milk 2% <sup>2</sup>	9 691	9 534	9 103	8 674	0.39	0.38	0.36	0.34
Sweetened concentrated milk <sup>3</sup>	14 511	14 156	14 237	11 952	0.58	0.56	0.56	0.47

	Total consumption (kL)				Per capita consumption (L)			
	1983	1984	1985	1986	1983	1984	1985	1986
Yogourt (prod.)	47 180	53 193	61 243	70 202	1.89	2.12	2.41	2.74
Ice cream, hard and soft (prod.)	311 031	301 205	310 207	316 066	12.49	11.98	12.22	12.34

<sup>1</sup> Previously called evaporated whole milk.  
<sup>2</sup> Previously called partly skimmed evaporated milk (2%).  
<sup>3</sup> Previously called condensed whole milk.

**9.19 Estimated commercial production and farm value of fruit**

Fruit	Weight (t)				Farm value (\$'000)			
	1982	1983	1984	1985	1982	1983	1984	1985
Apples	477 626	484 853	434 248	478 606	86,083	96,374	91,054	115,598
Apricots	2 764	2 170	2 323	2 274	1,200	879	1,022	1,117
Blueberries	23 234	22 545	17 056	22 432	31,709	24,308	13,167	20,312
Cherries (sweet)	3 632	8 414	8 148	8 690	3,189	4,729	5,952	8,891
Cherries (sour)	7 127	6 547	7 614	7 349	3,820	7,226	6,058	6,178
Cranberries	7 130	8 452	6 123	8 186	8,871	11,795	8,141	13,847
Grapes	74 118	84 791	94 208	76 635	34,055	41,428	42,785	36,430
Peaches	34 257	38 819	30 570	42 204	21,302	17,078	17,188	22,032
Pears	30 740	28 679	24 353	28 217	9,251	7,407	9,851	11,845
Plums and prunes	6 866	6 250	5 391	5 485	3,523	1,907	2,979	3,938
Raspberries	12 856	15 485	14 998	15 262	25,386	19,377	23,663	26,887
Strawberries	31 710	29 884	33 230	38 301	40,366	38,835	38,412	46,355

**9.20 Estimated commercial area and production of vegetables**

Vegetables	Area (ha)				Production (t)			
	1982	1983	1984	1985	1982	1983	1984	1985
Asparagus	1 609	1 950	2 042	2 226	2 829	2 425	2 566	3 071
Beans	9 095	7 980	8 196	7 907	47 031	45 906	51 107	45 572
Beets	1 032	1 095	1 095	1 079	23 129	17 388	22 115	21 588
Cabbage	5 356	4 970	5 544	5 735	156 687	134 125	160 644	156 201
Carrots	7 305	7 080	7 487	7 965	284 797	255 094	283 757	264 563
Cauliflower	3 110	2 834	2 957	3 288	47 630	47 662	50 964	48 011
Celery	646	679	667	730	33 721	33 745	36 423	31 599
Corn	33 022	30 825	31 612	32 253	324 128	262 046	301 442	279 058
Cucumbers, field	3 562	3 268	3 507	3 331	61 641	58 310	62 946	54 387
Lettuce	2 010	1 957	2 003	2 059	39 153	43 242	47 194	51 498
Onions	3 941	3 840	3 730	3 842	131 621	115 437	147 799	147 957
Parsnips	252	191	196	185	3 328	2 707	3 338	2 925
Peas	20 881	18 189	19 505	18 988	73 379	52 333	72 275	80 652
Rutabagas	3 355	3 504	3 653	3 402	103 642	79 032	111 274	92 585
Spinach	533	567	563	537	3 249	3 463	4 627	3 883
Tomatoes, field	14 146	14 897	16 393	14 871	521 203	435 734	601 873	545 410

**9.21 Honey production, by province, and total value, 1982-85, with 10-year average for 1971-80 and 1972-81**

Province		Average		1982	1983	1984	1985
		1971-80	1972-81				
Prince Edward Island	t	78	89	58	56	58	39
Nova Scotia	"	360	400	222	254	215	236
New Brunswick	"	203	223	132	211	181	152
Quebec	"	4 637	5 439	3 376	4 638	6 400	4 800
Ontario	"	7 475	7 488	2 642	4 491	4 391	4 129
Manitoba	"	11 158	12 077	7 789	7 301	7 893	8 709
Saskatchewan	"	9 044	9 556	5 812	8 097	8 573	7 382
Alberta	"	20 339	20 395	8 210	11 385	12 542	8 391
British Columbia	"	3 887	3 979	2 286	2 332	3 045	2 281
Total production	t	57 181	59 645	30 528	38 764	43 297	36 120
Total value	\$'000	27,797	32,565	50,640	61,294	63,212	55,192



### 9.22 Harvested area, yield, production and value of sugar beets

Year	Harvested area ha	Yield per ha kg	Total production t	Average price per tonne \$	Total farm value \$'000
1981 <sup>f</sup>	29 400	41 160	1 215 100		
1982 <sup>f</sup>	28 700	35 686	1 024 200	44.04	53,515
1983	30 900	37 780	1 167 400	36.38	37,257
1984	27 000	34 293	925 900	33.69	39,329
1985	12 000	33 333	400 000	29.64	27,444
1986	22 500	42 000	945 000	..	..
				..	..

### 9.23 Production and value of maple sugar and maple syrup, 1983-85, with 5-year average for 1975-79 and 1980-84

Province and year	Maple sugar		Maple syrup		Total value sugar and syrup \$'000
	Quantity kg	Value \$'000	Quantity kL	Value \$'000	
Nova Scotia					
Av. 1975-79	6 078	30	28 186	94	124
Av. 1980-84	11 340	87	45 461	264	351
1983	11 793	84	50 007	334	418
1984	10 433	88	59 099	365	453
1985	10 433	77	50 007	332	409
New Brunswick					
Av. 1975-79	9 163	41	37 278	124	165
Av. 1980-84	11 340	79	32 732	161	240
1983	9 525	80	36 369	191	271
1984	15 422	117	40 915	237	354
1985	7 257	60	40 915	231	291
Quebec					
Av. 1975-79	147 327	508	7 251 014	16,385	16,893
Av. 1980-84	155 582	833	9 085 815	26,409	27,242
1983	146 510	844	7 764 722	21,666	22,510
1984	106 141	638	6 914 603	22,031	22,669
1985	166 015	1,121	8 787 592	36,632	37,753
Ontario					
Av. 1975-79	5 625	33	655 546	2,064	2,097
Av. 1980-84	7 076	65	685 550	3,464	3,529
1983	8 165	72	713 736	3,696	3,768
1984	8 618	86	827 388	4,485	4,571
1985	11 793	120	991 048	5,600	5,720
Total					
Av. 1975-79	168 192	612	7 972 023	18,667	19,279
Av. 1980-84	185 338	1,064	9 849 559	30,298	31,362
1983	175 994	1,080	8 564 834	25,887	26,967
1984	140 614	929	7 842 005	27,118	28,047
1985	195 498	1,378	9 869 561	42,795	44,173

### 9.24 Production and value of farm eggs

Province	Egg production ('000 doz)				Total value sold and used (\$'000)			
	1983	1984	1985	1986	1983	1984	1985	1986
Newfoundland	8,028	8,466	8,535	8,338	8,258	9,293	9,066	8,634
Prince Edward Island	2,907	2,944	3,006	3,176	2,806	3,060	3,007	3,102
Nova Scotia	19,311	17,801	18,061	17,917	19,936	19,372	19,836	19,079
New Brunswick	10,256	10,735	10,530	10,239	11,928	13,371	14,383	13,587
Quebec	81,418	79,097	78,814	79,224	83,975	90,497	92,816	91,455
Ontario	203,452	196,170	194,803	195,648	191,891	204,157	201,171	198,638
Manitoba	52,424	51,844	52,482	52,837	46,017	49,441	48,979	47,996
Saskatchewan	21,089	20,431	20,640	21,196	20,164	20,631	20,742	20,792
Alberta	45,079	43,423	42,867	44,491	46,798	48,393	47,976	48,779
British Columbia	60,840	58,684	58,170	58,427	61,255	64,315	60,594	59,965
Canada	504,804	489,595	487,908	491,493	493,028	522,530	518,570	512,027

## 9.25 Harvested area, production and value of the commercial crop of leaf tobacco

Year	Maritimes			Quebec			Ontario		
	Har- vested area ha	Pro- duction t	Value \$'000	Har- vested area ha	Pro- duction t	Value \$'000	Har- vested area ha <sup>1</sup>	Pro- duction t	Value \$'000
1978	1 945	3 242	8,414	3 440	6 345	15,666	41 159	105 750	272,752
1979	1 998	3 277	9,543	3 376	6 367	17,528	39 561	69 188	200,049
1980	2 038	2 931	8,760	3 475	6 559	18,579	45 116	98 377	293,098
1981	1 976	3 944	13,155	3 542	7 242	23,480	48 797	114 160	382,475
1982	2 098	4 305	14,684	3 628	6 951	23,705	47 362	58 949	208,054
1983	2 307	4 818	17,284	3 614	7 651	26,379	41 238	99 246	353,137
1984	2 200	5 093	18,878	3 429	7 748	27,496	35 016	78 487	288,524
1985	1 922	3 616	14,047	3 261	6 683	25,126	34 710	77 756	288,053

<sup>1</sup> Commencing with the 1976 crop year, producers of flue-cured tobacco in Ontario changed from an area-harvested basis to weight-delivered formula, therefore area harvested is an estimate.

## 9.26 Harvested area, production and value of the commercial crop of leaf tobacco, by main type

Type of tobacco	Year	Harvested area ha <sup>1</sup>	Average yield per ha kg	Total production t	Average farm price per kg \$	Gross farm value \$'000
Flue-cured	1982	51 941	1 299	67 464	3.53	238,442 <sup>2</sup>
	1983	46 143	2 373	109 520	3.56	390,306
	1984	39 735	2 249	89 377	3.69	329,551
	1985	39 331	2 208	86 834	3.73	323,660
Burley <sup>3</sup>	1982	607	2 825	1 715	3.15	5,410
	1983	550	2 491	1 370	3.22	4,411
	1984	231	2 896	669	2.73	1,827
	1985	—	—	—	—	—
Cigar leaf	1982	268	1 760	472	2.07	977
	1983	261	1 629	426	2.12	904
	1984	274	1 814	497	2.28	1,134
	1985	237	1 949	462	2.37	1,096
Total <sup>4</sup>	1982	53 088	1 322	70 205	3.51	246,443
	1983	47 159	2 369	111 715	3.55	396,800
	1984	40 645	2 247	91 328	3.67	334,898
	1985	39 893	2 207	88 055	3.72	327,226

<sup>1</sup> Commencing with the 1976 crop year, producers of flue-cured tobacco in Ontario changed from an area-harvested basis to weight-delivered formula, therefore area harvested is an estimate.

<sup>2</sup> Total 1982 farm value of Ontario flue-cured tobacco includes only the marketed production from the 1982 crop.

<sup>3</sup> As of 1985, Burley tobacco is no longer produced in Ontario.

<sup>4</sup> Includes other types not specified.

## 9.27 Production and disposition of tobacco products

Item	Year	Total production	Sales <sup>1</sup>			Adjustments <sup>2</sup>
			In Canada <sup>2</sup>	Ship/air stores embassies/Canada	For export – bulk shipments, including Canadian mission abroad	
Cigarettes ('000)	1983	63,949,143	63,088,700	423,273	639,293	-506,945
	1984	61,634,277	61,733,857	445,696	674,929	-616,570
	1985	63,485,718	58,953,247	514,329	719,179	-429,900
	1986	55,632,568	55,436,969	560,055	977,729	-752,631
Cigars ('000)	1983	342,031	344,984	2,441	12,751	-2,194
	1984	335,560	312,052	2,708	8,330	-454
	1985	302,274	305,585	3,340	4,671	-1,281
	1986	283,045	283,250	3,526	3,200	7,993

## 9.27 Production and disposition of tobacco products (concluded)

Item	Year	Total production	Sales <sup>1</sup>			Adjustments <sup>3</sup>
			In Canada <sup>2</sup>	Ship/air stores embassies/Canada	For export - bulk shipments, including Canadian mission abroad	
Manufactured tobacco						
Fine cut <sup>4</sup> (kg)	1983	6 223 362	6 025 637	352	11 091	-39 221
	1984	6 319 306	6 165 084	1 363	12 078	96 944
	1985	6 401 610	6 866 366	23	9 256	-14 762
	1986	7 858 074	7 412 790	315	18 067	95 030
Pipe tobacco (kg)	1983	140 390	156 032	—	—	16 002
	1984	124 622	133 722	—	—	10 020
	1985	59 076	90 761	—	—	13 249
	1986	37 709	36 526	—	—	7 166
Other <sup>5</sup> (kg)	1983	132 757	134 765	—	—	3 550
	1984	125 626	117 705	—	—	-6 921
	1985	78 701	100 630	—	—	8 826
	1986	—	1 797	—	—	—

<sup>1</sup> Includes samples and goods invoiced to wholesalers, retailers, and institutions which are subject to excise duty, less returned goods credited to same.

<sup>2</sup> Excise duty exempt.

<sup>3</sup> All non-sale transactions (goods damaged, destroyed, stolen, reworked, stock adjustment).

<sup>4</sup> Includes tobacco, intended for cigarettes.

<sup>5</sup> Other tobacco, plug, snuff, chewing and twist.

## 9.28 Farm product price index<sup>1</sup> (1981 = 100)

Province	1982	1983	1984	1985	1986
Newfoundland	99.7	100.4	105.9	104.6	107.6
Prince Edward Island	78.7	83.6	93.5	83.0	84.2
Nova Scotia	102.5	100.7	105.3	105.2	108.8
New Brunswick	91.6	92.9	100.8	96.3	95.0
Quebec	104.8	104.4	104.9	102.5	107.5
Ontario	100.5	102.1	108.0	103.2	105.6
Manitoba	96.3	94.6	101.9	94.4	85.1
Saskatchewan	93.4	91.8	96.6	89.0	74.7
Alberta	96.2	94.6	101.6	94.9	86.0
British Columbia	104.0	103.0	108.2	106.5	107.8
Canada	98.1	97.6	102.9	97.3	92.8

<sup>1</sup> A description of this index, its coverage and the methods used can be obtained from Agriculture/Natural Resources Division, Statistics Canada. Monthly farm product price indexes are published in *Farm product price index* (Cat. No. 62-003).

## 9.29 Average cash grain prices, crop years ended July 31, 1982-86 (dollars per tonne)

Item	1981-82	1982-83	1983-84	1984-85	1985-86
Canadian Wheat Board					
Wheat <sup>1</sup> (1 CWRS 13.5)	214.31	204.64	215.21	235.33 <sup>2</sup>	249.12 <sup>2</sup>
Oats <sup>1</sup> (1 CW)	178.38	148.76	160.76	157.74	150.90
Barley <sup>1</sup> (SP SEL 6R)	185.81	163.38	181.27	207.14	210.26
Winnipeg Commodity Exchange					
Rye <sup>1</sup> (1 CW)	168.38	120.64	142.50	132.59	109.33
Flaxseed <sup>1</sup> (1 CW)	352.12	293.92	364.13	351.42	291.79
Canola-rapeseed <sup>3</sup> (1 Canada)	325.19	306.99	455.44	386.04	301.40

<sup>1</sup> Basis in store Thunder Bay.

<sup>2</sup> Basis in store Lower St. Lawrence.

<sup>3</sup> Basis in store Pacific Coast.

**9.30 Weighted average prices per 100 kg of Canadian livestock at public stockyards (dollars)**

Item and city	Average price				
	1982	1983	1984	1985	1986
<b>Toronto</b>					
A1,2 steers over 454 kg	177.56	174.12	188.05	179.96	182.23
D1,2 cows	111.16	112.11	117.55	115.04	116.21
Feeder steers over 363 kg	168.50	167.33	177.25	179.88	186.07
Choice and good veal calves	163.58	174.39	182.33	176.72	181.48
Index 100 hogs, dressed	183.69	155.98	160.17	151.04	179.40
Good lambs	163.89	170.37	189.99	213.30	235.30
<b>Winnipeg</b>					
A1,2 steers over 454 kg	165.72	159.84	171.23	168.30	168.92
D1,2 cows	102.34	104.26	106.90	107.48	110.39
Feeder steers over 363 kg	158.31	159.57	165.30	165.81	169.82
Choice and good veal calves	238.03	237.33	241.14	220.73	218.17
Index 100 hogs, dressed	177.71	150.99	154.54	146.06	178.80
Good lambs	122.09	131.26	144.07	171.83	181.79
<b>Calgary</b>					
A1,2 steers over 454 kg	161.11	157.72	166.52	163.54	159.22
D1,2 cows	102.27	102.69	103.35	107.10	110.25
Feeder steers over 363 kg	162.41	163.10	168.65	172.53	189.29
Choice and good veal calves	—	—	—	—	—
Index 100 hogs, dressed	—	—	—	—	—
Good lambs	—	—	—	—	—
<b>Edmonton</b>					
A1,2 steers over 454 kg	157.83	157.48	165.26	160.47	159.77
D1,2 cows	97.75	100.42	101.50	102.47	105.36
Feeder steers over 363 kg	158.91	162.64	166.40	167.82	178.31
Choice and good veal calves	—	—	—	—	—
Index 100 hogs, dressed	181.29	153.88	151.83	144.03	171.70
Good lambs	124.23	130.69	154.98	177.96	176.66

**9.31 Per capita supplies of food moving into consumption, 1982-85**

Kind of food	Weight base	kg per capita per annum			
		1982	1983	1984	1985
<b>Cereals</b>	retail wt	69.80	68.02	68.97	72.42
Wheat flour	"	57.53	55.73	56.80	60.48
Rye flour	"	0.43	0.45	0.36	0.32
Oatmeal and rolled oats	"	1.64	1.59	1.57	1.58
Pot and pearl barley	"	1	1	1	1
Corn flour and meal	"	1	1	1	1
Buckwheat flour	"	1	1	1	1
Rice	"	3.78	3.73	3.90	3.97
Breakfast food	"	3.96	4.11	3.83	3.79
<b>Sugar and syrups</b>	sugar content	38.89	38.91	41.20	42.35
Sugar	retail wt	38.04	38.70	41.04	42.19
Maple sugar	"	0.22	0.24	0.19	0.19
Honey	"	0.85	..	..	..
Other	"	..	..	..	..
<b>Pulses and nuts</b>	retail wt	4.08	3.99	..	6.24
Dry beans	"	1.64	0.83	0.07	0.66
Baked canned beans	"	..	..	0.89	2.19
Dry peas	"	0.31	..	..	2.68
Peanuts	"	2.37	2.62	2.70	1.37
Tree nuts	"	1.40	1.37	1.69	..
<b>Oils and fats</b>	fat content	20.62	21.48	20.82	21.37
Margarine	retail wt	6.47	6.34	6.08	6.45
Shortening and shortening oils	"	8.19	8.29	8.04	7.95
Salad oils	"	3.74	4.54	4.41	5.07
Butter	"	4.28	4.36	4.27	3.89
Lard	"	..	..	..	..
<b>Fruit</b>	fresh equiv.	124.88	125.58	134.22	118.17
Fresh	retail wt	59.98	61.77	62.87	60.17
Canned	net wt canned	8.25	8.85	9.06	8.40
Frozen	retail wt	0.81	1.32	1.03	1.10
Juice	net wt canned	27.44	27.73	29.95	22.13



## 9.31 Per capita supplies of food moving into consumption, 1982-85 (continued)

Kind of food	Weight base	kg per capita per annum			
		1982	1983	1984	1985
Fruit (continued)					
Tomatoes					
Fresh	retail wt	5.82	6.99	7.32	6.92
Canned	net wt canned	3.08	3.65	3.53	3.31
Tomato					
Juice	"	3.57	3.43	3.47	3.12
Pulp, paste and purée	"	1.51	1.68	1.85	1.90
Ketchup	"	..	..	..	..
Citrus fruit					
Fresh	retail wt	14.91	15.72	14.15	13.47
Juice	net wt canned	12.25	12.13	12.34	11.00
Apples					
Fresh	retail wt	12.29	10.81	12.29	12.63
Canned	net wt canned	..12	..	..	..
Juice	"	5.36	6.62	7.68	6.93
Frozen	retail wt	0.07	0.14	0.04	0.12
Sauce	net wt canned	0.56	0.60	0.64	0.80
Pie filling	"	0.16	0.21	..	..
Apricots					
Fresh	retail wt	0.09	0.08	0.10	0.11
Canned	net wt canned	0.09	0.12	..	..
Bananas, fresh	retail wt	10.93	10.04	11.04	11.23
Blueberries					
Fresh	"	0.43	..	0.16	..
Canned	net wt canned	..	..	..	..
Frozen	retail wt	..	0.08	0.01	0.08
Cherries					
Fresh	"	..	..	..	..
Canned	net wt canned	..	..	..	..
Frozen	retail wt	..	0.17	..	..
Cranberries, fresh	"	0.45	0.43	0.34	0.45
Melons, fresh	"	4.69	4.76	5.28	5.22
Peaches					
Fresh	"	1.83	1.95	1.86	..
Canned	net wt canned	1.00	0.92	0.97	0.89
Frozen	retail wt	..	..	..	..
Pears					
Fresh	"	..	1.82	2.10	1.97
Canned	net wt canned	0.50	0.62	0.54	..
Pineapples					
Fresh	retail wt	0.44	0.50	0.45	0.42
Canned	net wt canned	1.03	0.88	1.25	1.28
Juice	"	0.63	0.35	0.50	0.33
Plums					
Fresh	retail wt	0.91	1.14	..	..
Canned	net wt canned	0.04	0.03	0.04	0.03
Raspberries					
Fresh	retail wt	..	0.04	..	..
Canned	net wt canned	..	..	..	..
Frozen	retail wt	0.33	0.43	0.56	0.49
Strawberries					
Fresh	"	1.60	1.53	1.88	1.99
Canned	net wt canned	..	..	..	..
Frozen	retail wt	0.41	0.50	0.42	0.41
Grapes, fresh	"	5.59	5.96	5.90	5.75
Unspecified					
Fresh	"	..	..	..	..
Canned	net wt canned	..	..	..	..
Frozen	retail wt	..	..	..	..
Juice	net wt canned	5.06	4.58	5.17	..
Jams, jellies, marmalade	processed wt	..	..	..	..
Vegetables <sup>2</sup>					
Fresh	fresh equiv.	70.13	67.80	68.68	56.41
Canned	retail wt	53.02	53.17	54.21	47.78
Frozen	net wt canned	7.74	7.04	5.83	2.85
Cabbage, fresh	retail wt	3.92	3.06	3.73	3.57
Lettuce	"	6.15	6.37	6.65	..
Spinach, fresh	"	8.86	9.25	9.58	9.62
Carrots	"	..	..	..	..
Fresh	"	8.72	8.85	7.97	8.53
Canned	net wt canned	0.22	0.20	0.23	0.15
Frozen	retail wt	0.67	0.65	0.83	0.76
Beans					
Fresh	"	0.67	0.71	0.79	0.78
Canned	net wt canned	1.42	1.29	1.33	1.08
Frozen	retail wt	0.55	0.45	0.53	0.47
Peas					
Fresh	"	0.05	0.08	0.17	0.18
Canned	net wt canned	1.27	1.48	1.46	0.94
Frozen	retail wt	1.47	0.90	1.19	1.12
Beets					
Fresh	"	0.67	0.46	0.50	0.56
Canned	net wt canned	0.24	0.21	0.20	0.26
Cauliflower, fresh	retail wt	2.24	2.48	2.77	2.64
Celery, fresh	"	4.29	4.23	4.33	4.26

## 9.31 Per capita supplies of food moving into consumption, 1982-85 (concluded)

Kind of food	Weight base	kg per capita per annum			
		1982	1983	1984	1985
Vegetables (continued)					
Corn					
Fresh	retail wt	3.00	2.40	3.12	2.86
Canned	net wt canned	2.53	1.97	2.02	1
Frozen	retail wt	0.59	0.66	0.57	0.59
Cucumbers, fresh	"	2.42	2.52	2.60	3.39
Onions, not processed	"	6.88	6.78	6.63	7.35
Asparagus					
Fresh	"	0.06	0.12	1	0.06
Canned	net wt canned	0.14	0.14	1	1
Frozen	retail wt	0.01	0.01	0.01	0.01
Rutabagas, fresh	"	2.41	2.26	2.57	2.44
Broccoli					
Fresh	"	1.38	1.50	1.78	1.94
Frozen	"	0.18	0.14	0.19	0.26
Brussels sprouts					
Fresh	"	0.14	0.14	0.18	0.20
Frozen	"	0.24	0.14	0.17	0.17
Unspecified					
Fresh	"	1.50	1.31	0.77	0.82
Canned	net wt canned	0.40	0.30	0.46	0.30
Frozen	retail wt	--	--	1	1
Mushrooms	fresh equiv.	2.17	2.20	1.27	1.48
Fresh	retail wt	1.03	1.09	1.27	1.48
Canned	net wt canned	1.37	1.34	1	1
Potatoes	fresh equiv.	67.00	77.36	61.06	68.09
White	"	66.66	77.04	60.69	67.68
Sweet	"	0.34	0.32	0.37	0.41
Meat	carcass wt	71.99	72.53	70.33	71.53
Pork	"	27.84	28.62	27.89	28.49
Beef	"	40.44	40.02	38.29	38.77
Veal	"	1.69	1.68	1.82	1.82
Mutton and lamb	"	0.74	0.80	0.87	0.76
Offal	"	1.28	1.41	1.46	1.69
Canned meat <sup>3</sup>	net wt canned	--	--	--	--
Eggs	fresh equiv.	12.75	12.56	12.15	11.96
Poultry <sup>4</sup>	eviscerated wt	22.62	22.91	23.70	25.06
Chicken	"	17.25	17.24	18.35	19.66
Fowl	"	1.41	1.61	1.40	1.41
Turkey	"	3.96	4.06	3.95	3.99
Duck	"	--	--	--	--
Goose	"	--	--	--	--
Fish	edible wt	5.98	6.18	6.29	--
Fish and shellfish	"	3.95	4.02	4.07	--
fresh and frozen <sup>5</sup>	"				
Fish, cured (smoked, salted, pickled)	"	0.25	0.11	0.18	--
Fish and shellfish, canned	"	1.78	2.05	2.04	--
Beverages					
Tea	tea leaf equiv.	0.91	0.91	0.88	0.51
Coffee	green beans	4.35	4.33	4.37	4.54
Cocoa	"	1.32	1.55	0.94	1.03

<sup>1</sup> Confidential.<sup>2</sup> Includes pickles, relishes, vegetables used in soups.<sup>3</sup> Per capita consumption not comparable with previous years.<sup>4</sup> Excludes Newfoundland.<sup>5</sup> Excludes herring fresh and frozen, and all fish used for bait.

## 9.32 Supply, distribution and apparent consumption of meats

Item		1983	1984	1985	1986
Beef					
Animals slaughtered	'000	3,709.6	3,578.8	3,634.7	3,588.9
Estimated dressed weight	t	992 959	951 845	988 853	991 684
On hand, Jan. 1	"	13 293	17 690	15 704	17 600
Imports for consumption	"	90 650	113 624	113 643	109 836
Total supply	"	1 096 902	1 083 159	1 118 200	1 119 120
Exports	"	82 375	104 526	116 492	102 309
On hand, Dec. 31	"	17 690	15 704	17 600	13 192
Apparent domestic consumption	"	996 837	962 929	984 108	1 003 619
Apparent per capita consumption	kg	40.02	38.29	38.77	39.19

### 9.32 Supply, distribution and apparent consumption of meats (concluded)

Item		1983	1984	1985	1986
<b>Veal</b>					
Animals slaughtered	'000	648.7	689.1	662.8	663.7
Estimated dressed weight	t	41 630	44 723	45 675	48 343
On hand, Jan. 1	"	530	967	554	710
Imports for consumption	"	833	1 211	1 201	1 708
Total supply	"	42 993	46 901	47 430	50 761
Exports	"	303	570	614	2 279
On hand, Dec. 31	"	967	554	710	649
Apparent domestic consumption	"	41 723	45 777	46 106	47 833
Apparent per capita consumption	kg	1.68	1.82	1.82	1.87
<b>Mutton and lamb</b>					
Animals slaughtered	'000	468.5	482.1	436.1	435.7
Estimated dressed weight	t	8 731	9 180	8 547	8 752
On hand, Jan. 1	"	2 056	4 463	1 592	2 376
Imports for consumption	"	13 792	9 834	11 719	16 210
Total supply	"	24 579	23 477	21 858	27 338
Exports	"	197	39	98	53
On hand, Dec. 31	"	4 463	1 592	2 376	3 140
Apparent domestic consumption	"	19 919	21 846	19 384	24 145
Apparent per capita consumption	kg	0.80	0.87	0.76	0.94
<b>Pork</b>					
Animals slaughtered	'000	13,687.8	13,850.7	14,428.7	14,422.1
Estimated dressed weight	t	852 047	862 536	900 293	907 774
On hand, Jan. 1	"	9 449	10 456	11 062	8 983
Imports for consumption	"	19 418	14 739	17 038	13 883
Total supply	"	880 914	887 731	928 393	930 640
Exports	"	157 552	175 295	196 457	215 008
On hand, Dec. 31	"	10 456	11 062	8 983	8 075
Apparent domestic consumption	"	712 906	701 374	722 953	707 557
Apparent per capita consumption	kg	28.62	27.89	28.49	27.63
<b>Offal</b>					
Estimated production	t	67 587	66 809	68 550	68 106
On hand, Jan. 1	"	4 836	5 082	4 752	6 390
Imports for consumption	"	8 002	7 461	10 175	12 390
Total supply	"	80 425	79 352	83 477	86 886
Exports	"	40 118	37 902	34 211	37 759
On hand, Dec. 31	"	5 082	4 752	6 390	4 734
Apparent domestic consumption	"	35 225	36 698	42 876	44 393
Apparent per capita consumption	kg	1.41	1.46	1.69	1.73

### 9.33 Number of Census-farms, by province, 1961-86

Province	1961	1971	1976	1981	1986
Newfoundland	1,752	1,042	878	679	651
Prince Edward Island	7,335	4,543	3,677	3,154	2,833
Nova Scotia	12,518	6,008	5,434	5,045	4,283
New Brunswick	11,786	5,485	4,551	4,063	3,554
Quebec	95,777	61,257	51,587	48,144	41,448
Ontario	121,333	94,722	88,801	82,448	72,713
Manitoba	43,306	34,981	32,104	29,442	27,336
Saskatchewan	93,924	76,970	70,958	67,318	63,431
Alberta	73,212	62,702	61,130	58,056	57,777
British Columbia	19,934	18,400	19,432	20,012	19,063
Canada	480,877	366,110	338,552	318,361	293,089

### 9.34 Census-farms, by type of organization and by province, 1981 and 1986 Census years

Province	Year	Individual family farm	Partnership		Legally constituted company		Other type
			Written	Verbal	Family	Non-family	
Newfoundland	1981	555	10	44	37	6	27
	1986	497	12	33	64	11	34
Prince Edward Island	1981	2,639	168	211	119	6	11
	1986	2,278	174	197	154	19	11
Nova Scotia	1981	4,435	175	221	173	23	18
	1986	3,569	214	209	222	49	20

### 9.34 Census-farms, by type of organization and by province, 1981 and 1986 Census years (concluded)

Province	Year	Individual family farm	Partnership		Legally constituted company		Other type
			Written	Verbal	Family	Non-family	
New Brunswick	1981	3,538	94	212	179	27	1
	1986	2,898	138	223	239	42	14
Quebec	1981	43,946	1,696	893	1,348	194	67
	1986	34,971	2,132	1,068	2,960	246	71
Ontario	1981	68,410	5,191	5,629	2,690	428	100
	1986	56,708	5,002	6,682	3,805	387	129
Manitoba	1981	25,701	688	1,965	882	85	121
	1986	22,869	761	2,468	1,035	81	122
Saskatchewan	1981	59,671	1,378	4,003	1,768	124	374
	1986	54,478	1,381	4,960	2,092	107	413
Alberta	1981	50,169	1,446	3,723	2,269	190	259
	1986	47,862	1,654	4,794	2,864	199	404
British Columbia	1981	16,715	640	1,147	1,277	164	69
	1986	14,812	679	1,668	1,656	145	103
Canada	1981	275,779	11,486	18,048	10,742	1,247	1,059
	1986	240,942	12,147	22,302	15,091	1,286	1,321

### 9.35 Use of farm land, by province, 1981 and 1986 Census years (hectares)

Province	Year	Improved land					Total area of farms	Total land area
		Under crops	Improved pasture	Summer fallow	Other	Unimproved land		
Nfld.	1981	4 744	4 148	358	1 203	23 004	33 457	37 163 735
	1986	4 876	3 821	384	1 657	25 820	36 561	37 163 735
PEI	1981	158 280	36 228	3 027	5 153	80 336	283 024	566 171
	1986	156 497	22 621	2 647	4 550	86 115	272 432	566 171
NS	1981	112 782	46 106	5 154	13 941	288 056	466 039	5 284 093
	1986	109 511	36 236	3 910	8 068	258 779	416 506	5 284 093
NB	1981	130 526	41 479	5 183	14 742	245 972	437 902	7 156 913
	1986	129 475	27 203	4 289	7 945	239 979	408 892	7 156 913
Que.	1981	1 756 038	443 559	53 077	107 666	1 418 940	3 779 280	135 780 885
	1986	1 744 395	301 132	31 802	60 060	1 501 409	3 638 800	135 780 885
Ont.	1981	3 632 727	657 009	63 309	165 507	1 520 779	6 039 331	91 743 320
	1986	3 457 965	431 285	80 336	125 559	1 551 433	5 646 581	91 743 320
Man.	1981	4 420 369	352 507	598 338	132 766	2 231 000	7 734 980	54 770 471
	1986	4 519 334	274 944	509 213	99 584	2 337 148	7 740 226	54 770 471
Sask.	1981	11 740 864	975 364	6 704 464	263 163	6 849 000	26 532 855	57 011 339
	1986	13 325 810	878 726	5 658 250	181 582	6 554 984	26 599 354	57 011 339
Alta.	1981	8 441 242	1 581 443	2 205 468	297 329	7 681 000	20 206 482	63 823 25
	1986	9 162 523	1 376 814	2 127 013	239 685	7 749 303	20 655 340	63 823 25
BC	1981	568 241	266 884	63 528	47 677	1 521 000	2 467 330	89 307 18
	1986	570 843	206 428	81 166	41 831	1 510 790	2 411 060	89 307 18
Canada	1981	30 965 813	4 404 727	9 701 906	1 049 147	21 859 087	67 980 680	922 097 31
	1986	33 181 234	3 559 215	8 499 015	770 526	21 815 765	67 825 756	922 097 31



### 9.36 Farm land classified by tenure, 1986 Census (hectares)

Province	Area owned	Area rented or leased		Total area
		From government	From other sources	
Newfoundland	13 118	21 859	1 583	36 561
Prince Edward Island	200 167	14 764	57 500	272 432
Nova Scotia	359 440	19 305	37 760	416 506
New Brunswick	347 068	13 511	48 312	408 892
Quebec	3 166 015	78 457	394 328	3 638 800
Ontario	4 229 662	80 540	1 336 379	5 646 581
Manitoba	4 871 428	929 246	1 939 550	7 740 226
Saskatchewan	16 521 056	3 895 109	6 183 188	26 599 354
Alberta	12 053 839	4 090 437	4 511 062	20 655 340
British Columbia	1 457 107	627 883	326 068	2 411 060
Canada	43 218 905	9 771 115	14 835 736	67 825 756

### 9.37 Census-farms, by province and size, 1981 and 1986 Census years (acres)

Province	Year	Size (acres)									
		Under 3	3-9	10-69	70-239	240-399	400-559	560-759	760-1,119	1,120-1,599	1,600 and over
Nfld.	1981	100	144	257	132	19	6	6	6	1	8
	1986	74	106	271	137	27	10	10	6	1	9
PEI	1981	77	72	423	1,606	577	217	87	57	24	14
	1986	100	80	380	1,322	512	231	101	67	20	20
NS	1981	171	251	894	2,047	884	401	210	111	43	33
	1986	192	195	720	1,636	764	395	196	120	38	27
NB	1981	102	157	478	1,701	834	407	200	114	39	31
	1986	124	146	382	1,327	771	402	199	122	49	32
Que.	1981	998	1,664	7,610	24,411	8,605	3,015	1,151	534	109	47
	1986	837	1,230	6,016	19,710	8,182	3,205	1,372	661	174	61
Ont.	1981	1,761	3,487	17,129	40,067	12,022	4,425	1,918	1,107	371	161
	1986	1,638	2,752	14,684	34,837	10,872	4,140	1,974	1,206	414	196
Man.	1981	250	523	1,832	5,389	4,975	4,113	3,875	4,203	2,352	1,930
	1986	272	494	1,710	4,881	4,270	3,429	3,484	3,914	2,493	2,389
Sask.	1981	264	241	1,189	7,438	8,577	7,718	9,314	13,510	10,012	9,055
	1986	339	254	1,107	7,017	7,505	6,514	7,939	12,323	9,892	10,541
Alta.	1981	321	589	3,352	12,426	9,383	6,844	6,404	7,600	4,978	6,159
	1986	364	667	3,365	12,588	8,726	6,267	6,103	7,341	5,164	7,192
BC	1981	716	4,525	7,137	3,783	1,205	613	593	546	354	540
	1986	830	3,985	6,926	3,500	1,170	600	519	534	392	607
Canada	1981	4,760	11,653	40,301	99,000	47,081	27,759	23,758	27,788	18,283	17,978
	1986	4,770	9,909	35,561	86,955	42,799	25,193	21,897	26,294	18,637	21,074

## 9.38 Spraying and dusting and irrigation, by province, 1980 and 1985 (Census data)

Province	Spraying and dusting				Irrigation			
	1980		1985		1980		1985	
	Number of farms	Acres sprayed or dusted	Number of farms	Acres sprayed or dusted	Number of farms	Acres irrigated	Number of farms	Acres irrigated
Newfoundland	217	2,893	182	3,839	5	22	10	72
Prince Edward Island	2,243	281,139	1,953	298,038	4	57	9	307
Nova Scotia	1,541	79,005	1,439	91,206	126	1,496	157	2,891
New Brunswick	1,524	165,638	1,351	176,402	71	856	106	1,770
Quebec	17,082	1,208,788	17,484	1,525,018	618	14,799	1,352	37,768
Ontario	50,891	5,702,381	46,206	5,952,659	2,638	79,387	3,723	129,818
Manitoba	17,462	6,888,540	19,755	9,887,088	283	17,136	273	24,049
Saskatchewan	39,179	14,707,520	53,671	32,705,754	1,277	138,164	1,642	207,399
Alberta	31,778	12,281,034	33,600	16,986,561	4,159	973,519	4,641	1,152,231
British Columbia	5,795	376,043	6,000	424,923	6,706	248,279	7,138	291,119
Canada	167,712	41,692,981	181,641	68,051,488	15,887	1,473,715	19,051	1,847,424

## 9.39 Total weeks of hired agricultural labour, by province, 1970-85 (Census data)

Province	1970 <sup>1</sup>		1975 <sup>1</sup>		1980		1985	
	Number of farms	Total weeks	Number of farms	Total weeks	Number of farms	Total weeks	Number of farms	Total weeks
Newfoundland	242	17,961	217	16,541	259	15,943	331	22,836
Prince Edward Island	2,203	95,849	1,493	72,220	1,628	80,656	1,682	86,755
Nova Scotia	2,283	112,303	1,763	102,219	2,182	151,741	2,397	164,393
New Brunswick	2,062	87,688	1,583	77,047	1,892	100,525	2,057	112,918
Quebec	20,698	480,550	15,577	532,301	19,406	761,828	23,415	907,862
Ontario	36,383	1,509,412	28,702	1,283,292	34,023	1,721,178	36,941	1,920,119
Manitoba	11,234	263,328	8,509	285,107	9,433	247,727	12,140	342,706
Saskatchewan	26,092	401,897	18,093	423,292	20,522	413,297	28,738	708,299
Alberta	20,996	552,430	16,376	556,216	17,950	559,110	24,978	867,535
British Columbia	7,335	310,666	6,484	338,593	7,904	484,165	9,162	582,576
Canada	129,530	3,832,135	98,802	3,686,963	115,199	4,536,170	141,841	5,715,999

<sup>1</sup> The Canada total includes data for Yukon and Northwest Territories.

## 9.40 Census-farms classified by sales class and province, 1981 and 1986 Census years

Province	Year	Number of farms with sales of							Total
		\$100,000 and over	\$50,000-99,999	\$25,000-49,999	\$10,000-24,999	\$5,000-9,999	\$2,500-4,999	under \$2,500	
Nfld.	1981	78	35	35	68	64	104	295	679
	1986	110	43	41	77	67	77	236	651
PEI	1981	381	414	473	569	386	362	569	3,154
	1986	553	433	422	496	292	262	375	2,833
NS	1981	515	388	342	601	634	689	1,876	5,045
	1986	735	333	316	641	578	567	1,113	4,283
NB	1981	383	423	382	477	501	536	1,361	4,063
	1986	644	369	296	511	466	490	778	3,554
Que.	1981	4,145	8,500	8,825	7,509	4,562	4,643	9,960	48,144
	1986	9,121	8,378	5,638	5,590	4,016	4,417	4,288	41,448
Ont.	1981	12,559	12,510	10,963	13,952	10,158	8,818	13,488	82,448
	1986	16,436	10,453	9,034	12,620	8,842	5,868	9,460	72,712
Man.	1981	3,191	5,530	6,394	6,308	3,053	2,041	2,925	29,446
	1986	5,878	5,905	4,839	4,807	2,310	1,523	2,074	27,330
Sask.	1981	5,813	15,453	18,961	15,392	5,773	2,950	2,976	67,311
	1986	10,947	16,998	14,670	11,649	4,304	2,241	2,622	63,433

**9.40 Census-farms classified by sales class and province, 1981 and 1986 Census years**  
(concluded)

Province	Year	Number of farms with sales of							Total
		\$100,000 and over	\$50,000- 99,999	\$25,000- 49,999	\$10,000- 24,999	\$5,000- 9,999	\$2,500- 4,999	under \$2,500	
Alta.	1981	7,327	9,873	11,049	12,003	6,387	4,525	6,892	58,056
	1986	11,364	10,549	9,842	10,244	5,697	4,047	6,034	57,777
BC	1981	2,154	1,346	1,748	2,802	2,487	3,060	6,415	20,012
	1986	2,616	1,231	1,757	2,832	2,456	2,807	5,364	19,063
Canada	1981	36,546	54,472	59,172	59,681	34,005	27,728	46,757	318,361
	1986	58,404	54,692	46,855	49,467	29,028	22,299	32,344	293,089

**9.41 Census-farms with sales of \$2,500 or more, classified by product type and province, 1986**

Product type	Province					
	Nfld.	PEI	NS	NB	Que.	Ont.
Dairy	68	584	698	631	15,906	11,028
Cattle	45	652	979	739	5,763	17,160
Hogs	17	221	132	125	2,749	4,840
Poultry	54	28	127	96	893	1,643
Wheat	—	4	1	7	217	733
Small grains (excl. wheat farms)	—	90	62	62	2,922	13,693
Field crops, other than small grains	13	474	45	384	771	1,988
Fruits and vegetables	94	60	457	252	2,250	4,089
Miscellaneous specialty	75	149	481	313	4,051	4,203
Mixed farms						
Livestock combination	12	127	42	45	382	1,653
Other combinations <sup>1</sup>	37	69	146	122	1,256	2,223
Total	415	2,458	3,170	2,776	37,160	63,253
	Man.	Sask.	Alta.	BC	Canada	
Dairy	1,412	881	1,828	1,150	34,186	
Cattle	4,682	7,866	17,110	4,266	59,262	
Hogs	1,111	906	1,635	290	12,026	
Poultry	356	166	533	752	4,648	
Wheat	6,272	30,968	8,504	151	46,857	
Small grains (excl. wheat farms)	8,758	16,942	15,403	663	58,595	
Field crops, other than small grains	415	285	1,187	356	5,918	
Fruits and vegetables	100	36	119	2,920	10,377	
Miscellaneous specialty	731	609	1,944	1,893	14,449	
Mixed farms						
Livestock combination	615	1,064	1,399	238	5,577	
Other combinations <sup>1</sup>	810	1,086	2,081	1,020	8,570	
Total	25,262	60,809	51,743	13,699	260,745	

<sup>1</sup>In 1986, includes "field crops combination".

**9.42 Selected farm machinery, by province, 1981 and 1986 Census years**

Province	Year	Automobiles	Motor trucks	Tractors	Grain combines	Swathers	Pick-up hay balers	Forage crop harvesters
Nfld.	1981	504	522	648	1	31	123	24
	1986	155	656	693	3	20	154	30
PEI	1981	3,670	4,099	5,804	1,161	220	1,896	407
	1986	2,031	4,408	6,065	1,125	90	1,844	339
NS	1981	4,807	4,608	7,613	302	328	2,604	417
	1986	1,883	4,670	7,730	378	126	2,379	416
NB	1981	3,985	4,544	7,012	768	413	2,360	393
	1986	2,112	4,826	7,105	724	217	2,151	382

## 9.42 Selected farm machinery, by province, 1981 and 1986 Census years (concluded)

Province	Year	Automobiles	Motor trucks	Tractors	Grain combines	Swathers	Pick-up hay balers	Forage crop harvesters
Que.	1981	44,192	28,397	92,809	6,876	7,517	27,509	7,632
	1986	32,420	31,424	96,090	7,108	4,053	26,247	8,402
Ont.	1981	96,701	80,454	178,041	25,134	12,890	39,530	16,351
	1986	54,418	79,228	187,165	23,740	10,418	37,282	14,513
Man.	1981	30,057	54,070	67,342	22,631	24,291	15,694	1,383
	1986	21,209	57,502	73,945	21,946	24,528	15,317	978
Sask.	1981	67,297	150,792	145,362	59,704	67,588	32,569	2,498
	1986	48,609	159,867	167,034	58,145	70,455	30,640	1,560
Alta.	1981	61,950	123,835	124,214	42,663	47,601	35,870	4,440
	1986	40,918	146,309	150,479	42,970	49,144	37,578	3,449
BC	1981	21,568	23,087	28,761	1,870	3,729	7,186	2,211
	1986	8,581	25,346	31,768	1,795	3,212	7,484	1,863
Canada	1981	334,731	474,408	657,606	161,110	164,608	165,341	35,756
	1986	212,336	514,236	728,074	157,934	162,263	161,076	31,932

## 9.43 Farms classified by age of operator and province, 1981 and 1986 Census years

Province	Year	Under 25 years	25-34 years	35-44 years	45-54 years	55-59 years	60-64 years	65-69 years	70 years and over	Total
Nfld.	1981	20	115	155	186	74	81	28	20	679
	1986	12	110	171	173	69	60	29	27	651
PEI	1981	119	523	667	786	369	300	212	178	3,154
	1986	77	443	649	674	347	259	164	220	2,833
NS	1981	90	778	1,120	1,232	591	521	370	343	5,045
	1986	58	589	1,097	1,018	498	426	281	316	4,283
NB	1981	102	675	863	967	522	439	261	234	4,063
	1986	54	534	873	830	381	380	250	252	3,554
Que.	1981	1,433	9,000	12,122	12,910	5,648	3,776	1,875	1,380	48,144
	1986	809	7,307	11,013	10,610	5,020	3,465	1,800	1,424	41,448
Ont.	1981	2,069	12,600	18,867	21,559	9,930	7,617	5,010	4,796	82,448
	1986	1,149	10,334	16,377	17,552	9,386	7,770	5,044	5,101	72,713
Man.	1981	1,428	5,800	6,253	7,008	3,455	2,718	1,689	1,091	29,442
	1986	857	5,208	6,173	5,960	3,182	2,729	1,729	1,498	27,336
Sask.	1981	4,105	13,595	12,818	15,366	7,876	6,484	4,074	3,000	67,318
	1986	2,477	12,745	13,132	13,003	7,143	6,424	4,379	4,128	63,431
Alta.	1981	2,011	10,419	13,664	15,075	6,568	5,045	3,005	2,269	58,056
	1986	1,507	9,887	13,247	13,935	6,833	5,637	3,506	3,225	57,777
BC	1981	291	3,029	5,175	5,456	2,315	1,641	1,111	994	20,012
	1986	159	2,053	4,749	5,201	2,470	1,974	1,199	1,258	19,063
Canada	1981	11,668	56,534	71,704	80,545	37,348	28,622	17,635	14,305	318,361
	1986	7,159	49,210	67,481	68,956	35,329	29,124	18,381	17,449	293,089



# 9.44 Farm capital by province, 1986 Census, and by year, 1951-81

Province and year	Total number of farms	Value (\$'000,000)			Total capital value \$'000,000
		Land and buildings	Machinery and equipment	Livestock and poultry	
1986					
Newfoundland	651	78.4	14.9	12.9	106.2
Prince Edward Island	2,833	489.5	170.8	78.3	738.6
Nova Scotia	4,283	655.2	184.7	126.9	966.7
New Brunswick	3,554	489.4	176.8	94.5	760.7
Quebec	41,448	5,951.4	2,038.8	1,455.9	9,446.1
Ontario	72,713	17,972.5	3,695.8	2,068.9	23,737.2
Manitoba	27,336	6,584.3	2,231.2	739.2	9,554.6
Saskatchewan	63,431	21,830.0	6,144.3	1,279.9	29,254.2
Alberta	57,777	20,773.5	5,382.3	2,467.6	28,623.4
British Columbia	19,063	5,263.8	726.1	497.9	6,487.9
Canada	293,089	80,088.0	20,765.7	8,822.0	109,675.7
1951					
	623,091	5,527.2	1,933.3	2,010.4	9,470.9
1961	480,903	8,622.6	2,568.6	1,979.9	13,171.2
1971	366,128	16,936.0	3,909.2	3,221.3	24,067.9
1976	338,578	43,556.4	9,034.5	4,464.9	57,055.8
1981	318,361	103,275.1	17,444.2	9,585.1	130,304.4

# 9.45 Farm operating expenses and depreciation charges (million dollars)

Item	1982	1983	1984	1985	1986 <sup>P</sup>
Property taxes	240.9	254.8	249.3	280.0	296.9
Gross farm rent	664.2	694.2	695.8	690.4	645.1
Wages to agricultural labour					
Cash wages	1,140.7	1,221.5	1,256.5	1,345.2	1,408.6
Room and board	23.8	23.2	23.8	25.3	26.7
Sub-total, wages to agricultural labour	1,164.5	1,244.8	1,280.4	1,370.5	1,435.3
Interest on indebtedness	2,241.6	1,865.2	1,973.4	1,837.8	1,816.7
Machinery expenses					
Gasoline, diesel and lubricant	1,181.7	1,255.0	1,279.3	1,278.0	980.8
Machinery repairs and other expenses	1,081.4	1,130.9	1,114.6	1,161.5	1,222.1
Sub-total, machinery expenses	2,263.1	2,385.9	2,393.9	2,439.5	2,202.9
Fertilizer and lime					
Fertilizer	1,114.2	1,200.0	1,319.1	1,390.5	1,301.9
Lime	14.5	14.4	15.6	15.6	16.0
Sub-total, fertilizer and lime	1,128.7	1,214.3	1,334.7	1,406.1	1,317.9
Other crop expenses					
Pesticides	533.8	584.1	644.4	688.7	682.0
Seed and seedlings	316.2	335.3	376.8	385.4	388.9
Irrigation	12.0	13.0	13.7	13.3	14.4
Twine, wire and containers	91.2	92.4	95.2	98.8	104.2
Sub-total, other crop expenses	953.2	1,024.7	1,130.1	1,186.1	1,189.5
Feed	2,002.1	1,968.1	2,161.8	2,054.5	1,831.5
Other livestock expenses					
Livestock purchases	438.6	414.2	405.5	362.2	355.9
Breed association fees	7.2	7.2	7.4	7.9	8.3
A.I. fees and veterinary	169.4	176.8	181.3	190.8	193.2
Sub-total, other livestock expenses	615.2	598.2	594.2	560.9	557.3
Repairs to buildings	254.2	256.1	258.7	256.3	272.6

**9.45 Farm operating expenses and depreciation charges (million dollars) (concluded)**

Item	1982	1983	1984	1985	1986 <sup>p</sup>
Electricity and telephone					
Electricity	241.5	253.8	272.4	284.8	293.6
Telephone	74.4	79.1	82.5	88.4	88.4
Sub-total, electricity and telephone	315.9	332.9	354.9	373.2	382.0
Miscellaneous	1,016.1	1,084.2	1,113.9	1,194.7	1,210.9
Total, operating expenses	12,859.8	12,923.3	13,541.2	13,650.1	13,158.6
Depreciation					
Depreciation on buildings	537.3	508.7	482.1	450.9	421.2
Depreciation on machinery	2,184.5	2,229.6	2,227.1	2,173.4	2,198.9
Total, depreciation	2,721.8	2,738.3	2,709.2	2,624.4	2,620.2
Total, operating and depreciation	15,581.6	15,661.7	16,250.4	16,274.5	15,778.8

**9.46 Farm operating expenses and depreciation charges, by province (million dollars)**

Province	1982	1983	1984	1985	1986 <sup>p</sup>
Newfoundland	28.3	28.5	31.1	33.4	35.9
Prince Edward Island	137.0	138.0	142.7	144.4	141.6
Nova Scotia	190.3	196.1	201.2	194.0	193.6
New Brunswick	158.3	161.6	170.4	175.0	168.9
Quebec	2,217.1	2,204.4	2,279.9	2,237.5	2,225.4
Ontario	4,220.3	4,166.2	4,290.8	4,245.3	4,103.2
Manitoba	1,503.2	1,540.7	1,616.8	1,646.6	1,587.9
Saskatchewan	3,083.8	3,251.1	3,346.1	3,442.3	3,436.9
Alberta	3,232.7	3,191.0	3,356.7	3,341.7	3,076.3
British Columbia	810.5	783.9	814.7	814.1	809.0
Canada	15,581.6	15,661.7	16,250.4	16,274.5	15,778.8

**Sources**

9.1 - 9.23, 9.25 - 9.46 Agriculture and Natural Resources Division, Statistics Canada.

9.24 Industry Division, Statistics Canada.

CHAPTER 10

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**MINES AND MINERALS**

**CHAPTER 10****MINES AND MINERALS**

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## THEN



"In 1921 Canada ranked first among the mineral producing countries of the world in the production of asbestos, first in nickel, third in silver, third in gold and ninth in coal." (1922-23)

In 1929 Canada ranked third among the world's gold-producing nations. The Union of South Africa ranked first, with 53.4 p.c. of the world's production, the United States was second, producing 10.5 p.c. and Canada produced 9.9 p.c. (1931)

Gold production in the Yukon reached its highest point in 1900, when 1,350,057 fine oz. were produced. The annual production of gold ranked second in value among the minerals of Canada, being exceeded by coal only. (1931)

### Intercolonial Coal Mining Co.

#### DIRECTORS

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As Coal is rapidly superseding Wood in all large Cities we beg to draw attention to the Fuel supplied by this Company.

As a Steam Coal the most careful tests prove it to be superior to any Scotch or English Coal imported.

For Grates and Stoves, it is much more economical than either Wood or Anthracite Coal.

For Cooking Ranges it answers admirably.

This Company is a Montreal organization, and has introduced here, during the present season, over *forty-six* (46) *thousand tons* of Coal, which have been sold at lower rates than ever ruled before in this market, notwithstanding the date—it, therefore, deserves a preference.

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## NOW

During 1986, the Canadian mining industry produced a record value of \$15.6 billion of minerals (excluding oil and natural gas); 80% of this production was for export.

Employment in mining and mineral manufacturing totalled an estimated 379,000 in 1986, or 3.3% of total employment in Canada.

Traditionally, Canada has ranked third in world gold production, well behind South Africa and the Soviet Union. In 1986, US production was expected to surpass that of Canada by about 10 000 kg.

Canada is the world's largest producer and trader of zinc, providing about 25% of all zinc consumed in the western world.

Canada is the world's largest exporter of asbestos, with more than one-third of Canadian exports going to the US and Japan.

## CHAPTER 10

# MINES AND MINERALS

### 10.1 Canada's mineral industry

Canada leads the world in value of mineral exports and ranks third among the diversified mineral producers in non-fuel mineral production, behind the Soviet Union and the United States. The mineral industry has been a major factor in Canada's economic development and is still the main force in the northward advance of population and economic activity.

The industry is highly diversified, with over 60 different mineral commodities produced. It is also widely distributed, with exploration and mining activities being carried out in all regions of Canada.

On a volume basis, Canada is a world leader in the production of many minerals. It is first in uranium, zinc and nickel; second in asbestos, potash, sulphur and gypsum; third in gold, aluminium and the platinum group metals; fourth in molybdenum, copper, cadmium and lead; and fifth in silver. Except for a few minerals such as tin, manganese, chromium, phosphate and bauxite, Canada produces most of its mineral requirements.

During 1986, the Canadian mining industry produced a record value of \$15.6 billion of minerals (excluding oil and natural gas). Eighty per cent of this production was destined for export markets — the United States, Japan and Western Europe are Canada's major trading partners.

#### 10.1.1 Sectors of production

The Canadian mineral industry as a whole is divided into four sectors: metallic minerals, non-metallic minerals, structural materials and fuels. Of that total, metallic minerals represented 6.4% or \$8.9 billion in 1986; non-metallic minerals (including coal) represented 13% or \$4.4 billion; structural materials, 6.5% or \$2.2 billion; and fuels, 54% or \$18.3 billion. The non-fuel sector (including coal) of the mineral industry increased in value by 1% to \$15.6 billion in 1986, compared with \$15.4 billion in 1985; the fuel sector (excluding coal) declined 37.5% from

\$29.3 billion in 1985 to \$18.3 billion in 1986. The overall total value of all sectors of the industry in 1986 was \$33.9 billion compared with \$44.7 billion in 1985.

In terms of the total value of output, Alberta contributed the largest share in 1986 at 51.5%. Ontario was second with 14.2%, followed by British Columbia, 9.9%, Saskatchewan, 7.6% and Quebec, 6.7%. In considering non-fuel mineral output by province, Ontario led with 34.0%, followed by Quebec, 16.4%, British Columbia, 11.9%, Alberta, 8.5%, Saskatchewan, 7.7%, Newfoundland, 5.5% and Manitoba, 4.8%.

In terms of real output measured by gross domestic product in 1981 dollars (a measure of physical volume of output), the non-fuel mining industry is estimated to have increased from \$6.1 billion in 1985 to \$6.2 billion in 1986. The total output from primary metal industries including non-ferrous smelters and refineries and crude steel industries is estimated to have decreased from \$3.9 billion in 1985 to \$3.8 billion in 1986, while metallic and non-metallic semi-fabricating and fabricating industries increased from \$8.2 billion to \$8.5 billion. The value of output in 1981 dollars for the industry as a whole, including mining and mineral manufacturing, totalled \$18.6 billion in 1986, up from \$18.3 billion in 1985 and represented 5.2% of the total output of the economy.

While value of output for non-fuel minerals increased in 1986 and metal prices showed some improvement, the industry continued to suffer from surplus capacity, sluggish demand and low profits. Cost-cutting remained a priority throughout the year. Employment in metal mines, non-metal mines and structural materials continued to drop from a peak level of 101,000 in 1981 to 78,000 in 1985 and an estimated 77,000 in 1986. Employment in smelting and refining and crude steel industries remained about the same as in 1985 at 77,000, down from the 1981 peak level of 95,000. Mineral manufacturing employment, on the other hand, increased to an estimated 224,000 in 1986, from 217,000 in 1985.

Employment in mining and mineral manufacturing totalled an estimated 379,000 in 1986, or 3.3% of total employment in Canada.

Another area of cost-cutting for the mining industry included capital and repair expenditures which totalled an estimated \$3.4 billion in 1986, down from \$3.7 billion in 1985. The estimate of \$3.4 billion was revised upward from an earlier estimate of spending-intentions total of \$3.2 billion.

The availability of flow-through share financing was of considerable aid to the mining industry in 1986. Since its inception in 1983, the flow-through share program raised almost \$750 million. The total amount raised in the first 11 months of 1986 was \$346 million and is estimated to be \$550 million for the year. Almost 85% of that total was attributable to the search for gold across all areas of Canada. In Ontario, claims staked in the first six months of the year totalled 35,938, three times higher than the same period of 1985 and rivalling the record year of 1983 when 70,314 claims were recorded.

### 10.1.2 Export sales

Despite the sluggish worldwide demand for minerals in 1986, Canadian exports of crude and fabricated minerals, based on an estimate of nine months' data, totalled \$16.2 billion, up from \$15.5 billion in 1985. Crude minerals showed a slight decrease from a total of \$5.2 billion in 1985 to \$5.0 billion in 1986 but refined metals and fabricated mineral products increased from \$10.4 billion to \$11.2 billion. Of the total of all mineral exports, \$10.6 billion or 65.4% was destined for the US, compared with \$9.6 billion or 61.9% in 1985; \$2.9 billion to the EEC, compared with \$3.1 billion in 1985; and \$1.1 billion to Japan, the same as in 1985. Mineral exports represented 13.5% of total Canadian merchandise exports in 1986, up from 12.9% in 1985. Imports of crude and fabricated minerals, in 1986, totalled \$8.3 billion. Net exports contributed almost \$8.0 billion to the balance of trade surplus of \$11.0 billion for 1986.

### 10.1.3 Leading minerals

The top 10 commodities in terms of total value of output in 1986 (1985 values appear in brackets) were: petroleum, \$8.1 billion (\$15.6 billion); natural gas, \$6.7 billion (\$7.3 billion); natural gas byproducts, \$2.0 billion (\$2.8 billion); gold, \$1.7 billion (\$1.2 billion); coal, \$1.7 billion (\$1.8 billion); copper, \$1.6 billion (\$1.5 billion); zinc, \$1.3 billion (\$1.3 billion); iron ore, \$1.3 billion (\$1.5 billion); nickel, \$1.1 billion (\$1.2 billion); and uranium, \$0.9 billion (\$1.0 billion).

Petroleum and natural gas production and refining in Canada represents the largest part of the mineral industry. Domestic production and exports are small in the world industry context but are of great significance to Canada. The industry's growth in the past two decades has been important because of its effect on the balance of payments, as a source of revenue to the several levels of government, and for its impact on engineering, construction and other industrial activity. Crude oil production is concentrated in Alberta, with Saskatchewan second and minor production elsewhere. Generally, gas and oil are found together. Western provinces have the major proven reserves of gas.

The value of output of crude oil declined to \$8.1 billion in 1986 compared with \$15.6 billion the previous year. This decline was attributable to the drop in world oil prices. The price of crude oil fell from approximately \$33 per barrel on January 1, 1986 to \$14.60 by mid-year. The average price for the year was \$15, compared with \$27 in 1985. The volume and value of natural gas and coal declined in 1986.

In terms of value of output in the non-fuel mineral industry, gold rose to number one in 1986. Volume of production reached 105 tonnes in 1986, compared with 88 tonnes in 1985, and value of output climbed by almost \$500 million to \$1.7 billion as the Hemlo area came into full production. The price increased sharply in September 1986, reaching its highest level in three years and averaged US\$366.66 for the year compared with US\$317.27 in 1985.

Price made platinum a star performer among metals in 1986 rising from US\$350 in January to US\$600 in September. Some 80% of total world non-Communist production originates in South Africa. The possible disruption of supply from South Africa, the increasing demand for platinum as an industrial metal as well as its increasing popularity as an investment were other reasons for its success among precious metals. Platinum in Canada is produced as a byproduct in relatively small amounts, mainly in Ontario.

Canada rated fourth in world production of copper and both volume and value of output increased in 1986 compared with the previous year. The price of copper averaged 66.59 US cents per pound, a slight improvement from the average of 65.98 cents in 1985 but far short of the 101.42 average in 1981.

The price of lead also showed improvement in 1986, averaging 30.55 Cdn. cents per pound, up from 26.18 cents the previous year. Volume of output rose 13% and value 32% in 1986.



Output of the zinc industry remained relatively unchanged in 1986 compared with the previous year. The nickel industry, characterized by world over-supply, experienced a drop in value of output of 12% as the price declined during the year.

The output of molybdenum increased in 1986 as some producers resumed operations after lengthy shutdowns. Volume of production fell from 11 557 t in 1984 to 7 852 t in 1985, then recovered to 12 914 t in 1986. Iron ore continued to suffer from offshore competition and a lagging North American steel industry. Volume and value of production fell in 1986 as closures continued. Six producers remain, down from 17 in 1979 and forecasts show little improvement for the rest of the 1980s.

Asbestos continued to be pressured by health concerns and shrinking demand. Volume of production fell for the sixth consecutive year. Other non-metals remained stable with moderate growth throughout the year. Structural materials benefited from the residential construction boom and increased from \$2.1 billion in 1985 to \$2.2 billion in 1986.

## 10.2 Provincial and territorial summary, 1986

The value of Canadian mineral production in 1986 was \$33.9 billion, a decrease of \$10.9 billion, or 24% below the previous year. Metallic mineral output increased \$235 million or 2.7%, non-metals declined 2.5%, and structural materials increased by 3.5%. The main factor affecting the total production value was the output of energy commodities, which fell over \$11 billion, or more than 35%. Physical output of crude petroleum remained close to 1985 levels, but the value decreased by 47% or \$8.7 billion.

**Newfoundland.** The value of mineral production decreased by 12% from 1985 to \$764 million. Output of iron ore, zinc and asbestos, the three most important commodities, fell in value in 1986. Expenditures on exploration, chiefly for gold, increased.

**Prince Edward Island.** Production fell by 11.3% to \$1.7 million. The province produces only sand and gravel for local use.

**Nova Scotia.** The value of production increased by 9.6% from 1985 to \$357 million; with \$176 million for coal and \$50 million for gypsum.

**New Brunswick.** Mineral production increased by 3.4% to \$526 million; with \$205 million for zinc, \$51 million for lead, \$51 million for silver, and \$26 million for coal. Potash contributed to the growth in the non-metallic sector.

**Quebec.** Production decreased slightly, about 1.5%, to \$2.3 billion. With the exception of gold and construction materials, most commodities experienced a decline in value and in quantity. Gold ranked first with an estimated value of \$477 million, followed by iron ore at \$400 million, asbestos at \$200 million, and cement at \$192 million.

**Ontario.** The value of output was \$4.8 billion, an increase of 3.6% from 1985. Metals and non-metallic minerals accounted for 79% of this value and structural materials for 19%. Of the total amount were the following: \$815 million for nickel, \$765 million for gold, \$590 million for copper, \$476 million for uranium and \$375 million for zinc. The most active sector of the industry was gold exploration, development and production. New sources, particularly the three Hemlo mines, resulted in Ontario being the foremost gold-producing province.

**Manitoba.** Mineral production decreased by 12% from 1985 to \$758 million because of crude petroleum. Of this amount nickel accounted for \$259 million; copper, \$141 million, crude petroleum, \$94 million, and zinc, \$71 million.

**Saskatchewan.** The value of production decreased by 32% from 1985 to \$2.6 billion, because of the low level, \$1.3 billion, for crude petroleum. Production of uranium was valued at \$447 million and coal, \$100 million.

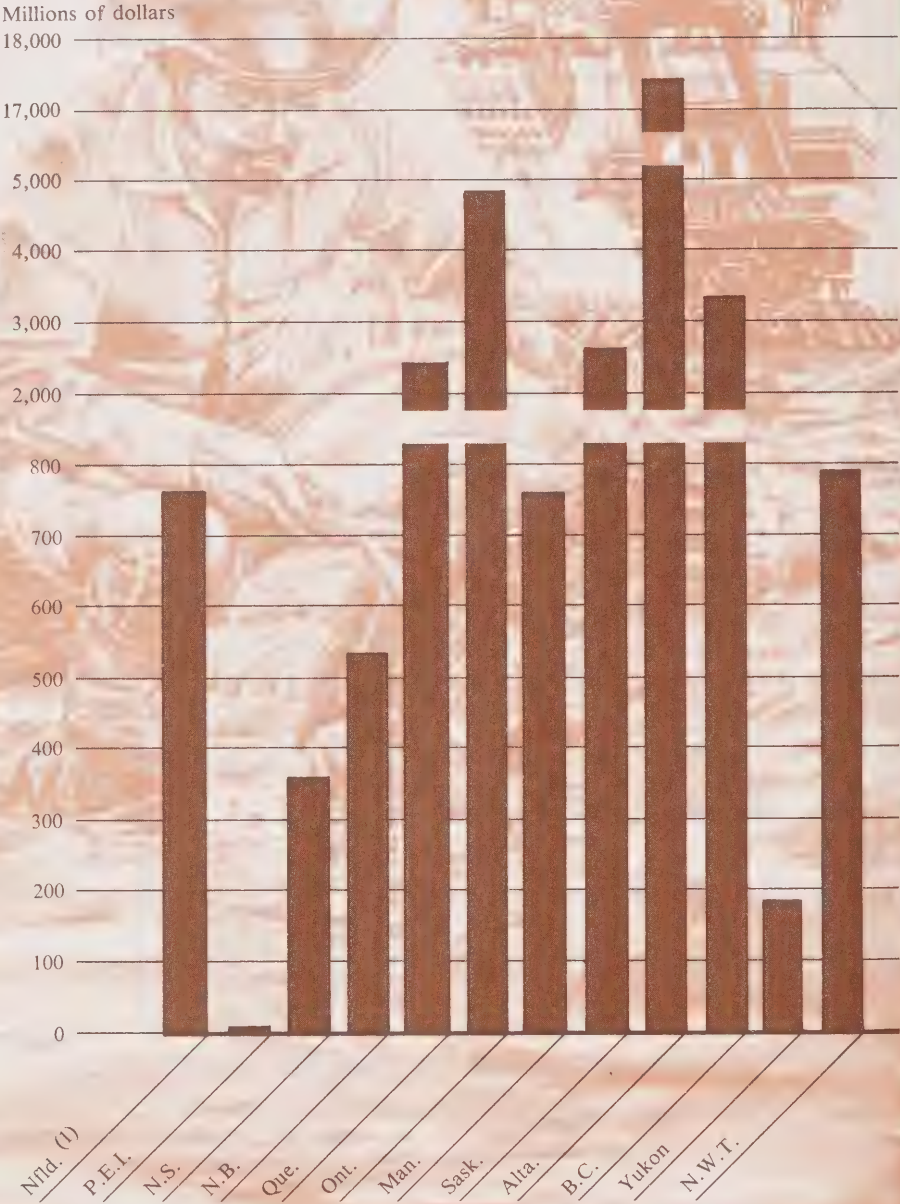
**Alberta.** The value of production decreased by 35% to \$17.5 billion, with \$8.0 billion for crude petroleum, \$6.1 billion for natural gas, and \$1.8 billion for natural gas byproducts; all considerably below 1985 levels. Output of sulphur was \$874 million, and coal, \$438 million, both slightly lower than in 1985.

**British Columbia.** The value of mineral production was \$3.4 billion, down 4.9% from 1985 because of lower levels of energy commodities. Of this amount were the following: \$974 million for coal, \$667 million for copper, \$431 million for natural gas, \$257 million for crude petroleum and \$170 million for zinc.

**Yukon.** The 1986 value of mineral production was \$184 million. Production from the Faro Mine resumed during the year and, as a result, production value was up 205%.

**Northwest Territories.** Production was \$790 million, down 8.7% from 1985 because of the low level, \$111 million for crude petroleum. Output of zinc was \$350 million and gold, \$219 million, both slightly higher than the previous year.

Chart 10.1  
Value of mineral production, 1986 <sup>p</sup>



(1) Includes Labrador.

### 10.3 Commodity summary

**Mineral fuels.** Oil, natural gas, coal and uranium are summarized in Chapter 11, Energy. Areas of production of other minerals and an explanation of changes in other sectors are outlined here.

#### 10.3.1 Metals

**Copper.** In 1986, mine production of copper in Canada rose for the fourth consecutive year since 1982, reaching an estimated 747 000 t of contained recoverable copper from over 50 mines. Estimated shipments in 1986 were 768 000 t of payable or recoverable copper, valued at \$1.6 billion. British Columbia and Ontario are the largest producers, and, on average since 1984, have accounted for 41% and 39%, respectively, of Canadian shipments. British Columbia's production is mostly exported for smelting, while Ontario's production is processed domestically. Manitoba and Quebec were the next largest shippers, each accounting for just over 9% of total Canadian copper shipments.

Canadian copper is produced in association with many other metals, most notably zinc, nickel and gold. The continuing low price of copper and some of its by- or co-products has seriously affected the profitability of most Canadian operations. A significant number of mines will be exhausted prior to 1990, but the prospect of continuing low prices has discouraged exploration for replacement capacity.

Annual Canadian refined production averaged 496 000 t for the period 1984 to 1986, of which just over 40% was shipped to domestic destinations for conversion into semi-fabricated forms such as sheet, tube, plate, wire and cable. Domestic producers have minimal or no tariff protection and must compete with imports from other producing countries. Imports of refined shapes generally average about 10% of domestic shipments. Thus domestic consumption of copper averaged 225 000 t from 1984 to 1986, including imported material. Exports of primary, refined and semi-manufactured copper goods have generated an average of \$1.2 billion annually, sold into an internationally competitive market, including countries with significant tariff protection.

There are six Canadian copper smelters, located in Flin Flon, Man., Timmins, Falconbridge and Copper Cliff, Ont., and Rouyn-Noranda and Murdochville, Que. The three copper refineries are in Timmins, Copper Cliff and in Montreal East. The smelter and refinery

in Timmins commenced an expansion from 60 000 to 90 000 tonnes per year that was essentially completed in late 1986.

Copper prices declined from 65 to 62 cents US/lb from 1985 to 1986. Due to the pressures associated with the low prices, companies in Canada and abroad have increased productivity and production to reduce costs — increasing oversupply and further reducing prices.

**Iron ore** production declined from a peak of 59.6 million tonnes in 1979 to a low of 33.0 million tonnes in 1983, recovering to 39.5 million tonnes in 1985 and 36.1 million tonnes in 1986. The major markets for Canadian iron ore are Western Europe, United States and Canada's own domestic steel industry.

Mine closures since 1983 in Quebec, Ontario and British Columbia reduced to six the number of iron ore mines in Canada and brought down production capacity to 50 million tonnes per year.

Three of the remaining mines are in the Labrador trough geological structure and these account for 93% of Canada's iron ore production. The three mines in Ontario, although small by world standards, have been producing advanced forms of iron ore to improve efficiency at the steel plants.

**Nickel.** Canada is the largest producer of nickel in the world, accounting for a little over one-fifth of total production. In 1986, Canada produced about 180 600 t, valued at \$1.1 billion, compared to 170 000 t in 1985.

With production concentrated in Ontario and Manitoba, nickel was produced from mines at Sudbury, Ont. and Thompson, Man. Refined nickel was produced at Sudbury and Port Colborne in Ontario and at Thompson, Man. A nickel refinery was also in operation at Fort Saskatchewan, Alta.

Cost reduction programs have been an important priority of producers in the past few years. The results have been encouraging and production costs have been drastically reduced. Operating costs at the Sudbury and Thompson operations, in current dollars, were actually lower in 1986 than in 1980.

Nickel prices on the London Metal Exchange fell in 1986 to an average price of US\$1.76, compared to \$2.22 in 1985. Global overcapacity has been keeping prices under pressure and the overcapacity is expected to persist for several more years.

Resistance to corrosion, high strength over a wide temperature range, pleasing appearance and suitability as an alloying agent are characteristics



of nickel which make it useful in a wide range of applications. The major use is in stainless steels, which accounts for close to 50% of consumption, followed by nickel-base alloys, electroplating, alloy steels, foundry products and copper-based alloys. Nickel is extensively used as an alloying agent and is a component in approximately 3,000 different alloys.

**Gold.** Canadian gold production in 1986 was estimated at 104 655 kg with a value of \$1.7 billion, compared with 87 562 kg valued at \$1.2 billion in 1985 and 83 446 kg valued at \$1.3 billion in 1984. The reduction in value against the increase in production in 1985 reflects the drop in gold price during that year.

Gold production in Canada has been increasing since 1980 (at 50 000 kg) when the price of gold hit record levels and averaged US\$614 (Cdn\$718) per ounce. After that period, the price of gold declined to US\$360 (Cdn\$466) in 1984, US\$317 (Cdn\$433) in 1985 and US\$368 (Cdn\$509) in 1986, but it remained high enough to encourage additions to Canadian production each year.

Canada has traditionally ranked third in world gold production, well behind South Africa and the Soviet Union. In 1986, production in the United States was expected to surpass that of Canada by about 10 000 kg.

The largest source of new gold production in Canada is the Hemlo region of northern Ontario. The deposit was discovered in 1981 and has resulted in the development of three separate gold mines. The three mines are expected to reach full capacity by 1989, at which time annual production in excess of 25 000 kg is expected.

In 1985, Ontario became the country's largest producer and unless major discoveries are made in other provinces it will remain so for at least the next 20 years. Quebec ranks second while the Northwest Territories has replaced British Columbia in third place. Newfoundland and Saskatchewan are both expected to become significant gold producers in the near future as mines now under development reach the production stage.

Gold production comes from three sources: gold mines, base metal mines and placer operations, which account for 77%, 19% and 4% of the country's production, respectively. Gold has been produced in every province and territory except Prince Edward Island. At the end of 1986, there were 41 gold mines in Canada.

Much of Canada's gold production is sold in the form of the gold maple leaf bullion coin. Sales of the coin reached a high in 1985 of

55 000 kg (1.8 million ounces), or nearly 65% of the country's gold production. The gold maple leaf coin is made only from Canadian mined gold and is 99.99% pure. There are four different sizes, namely the one, half, quarter and tenth ounce with face values of \$50, \$20, \$10 and \$5, respectively. Since the maple leaf coin was introduced in 1979, more than 248 828 kg (8 million ounces) of Canadian gold have been sold in that form.

The majority of Canadian mined gold is refined at the Royal Canadian Mint in Ottawa, with smaller amounts being refined at Montreal, Que. and at Burlington and Toronto in Ontario.

**Zinc.** Canada is the world's largest producer and trader of zinc, providing about 25% of all zinc consumed in the western world. Western world zinc production and consumption in recent years has reflected the state of the world economy. World mine production has increased steadily since 1981. Canadian mine output in 1986 was 1.06 million tonnes compared with 1.1 million tonnes in 1981. Production of refined zinc reached a high of 692 000 t in 1985, but dropped during 1986 to 570 000 t because of an extended strike and planned shutdowns. Consumption of refined zinc was 143 000 t in 1986, little changed from that of the previous years. Zinc is used mainly for galvanizing (43%), in brass (22%), diecasting alloys (15%) and semi-manufactures and chemicals accounting for the balance.

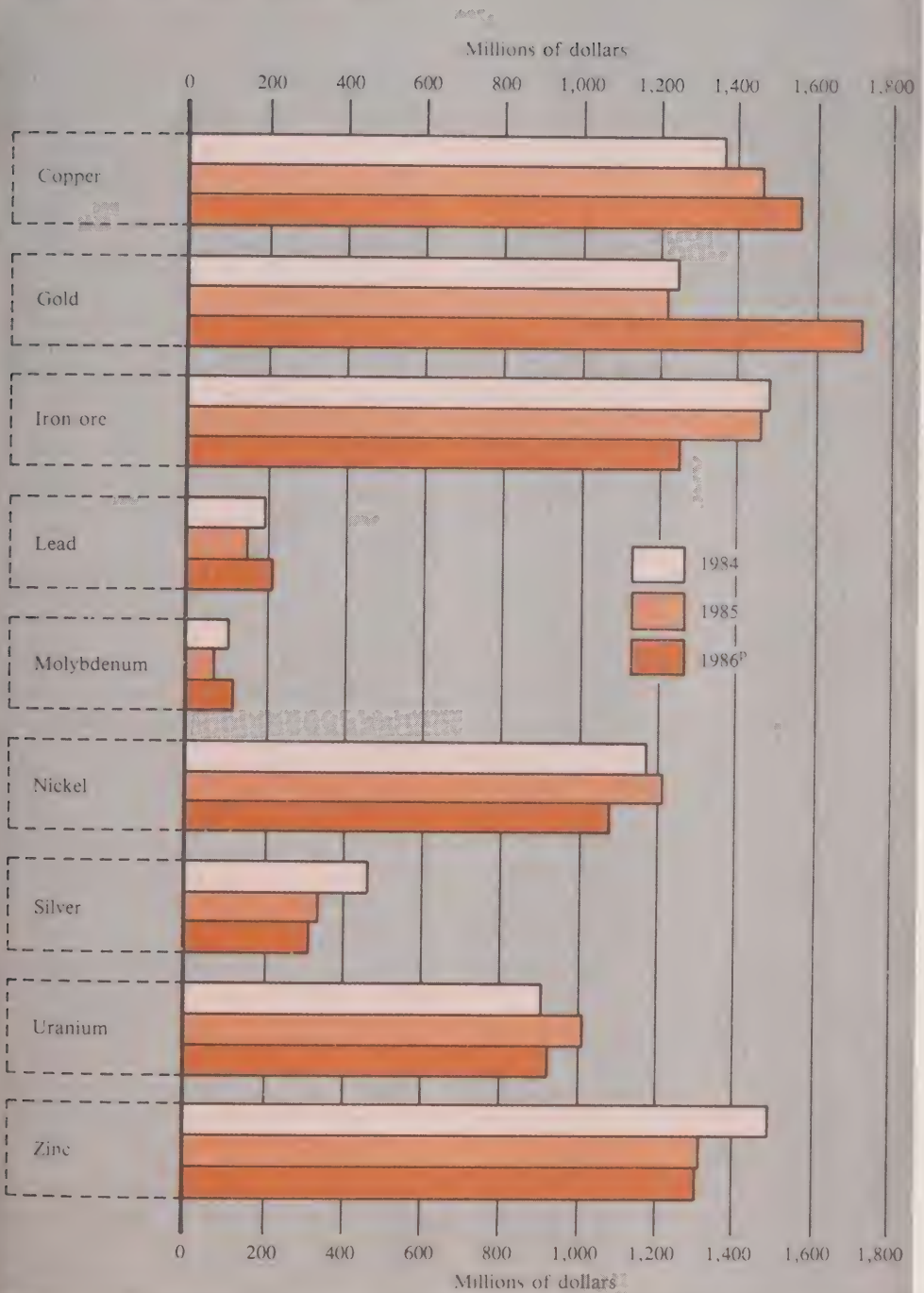
Four electrolytic zinc refineries in Canada have a total annual capacity of 705 000 t. Cominco Ltd. at Trail, BC is Canada's largest, followed by Canadian Electrolytic Zinc Limited at Valleyfield, Que., Falconbridge Limited at Timmins, Ont. and Hudson Bay Mining and Smelting Co., Limited at Flin Flon, Man. All smelters, except that at Flin Flon, have completed modernization and expansion programs in recent years, the most recent being Falconbridge.

Zinc is produced in approximately 25 mines in Canada, all of which also produce as co-products or byproducts, lead, copper or both as well as gold and silver. Ontario is the largest zinc mining province, accounting for just over 28% of Canadian production. Other important producers are the Northwest Territories (26%), New Brunswick (16%), British Columbia (13%) and Quebec (4%).

The Canadian industry is suffering from worldwide mining and smelting overcapacity and many mines have been forced to reduce or suspend production. A large mine at Faro, Yukon that suspended production in 1982 was reopened under new ownership in 1986.



Chart 10.2

**Value of production, leading metals**

**Silver.** Canadian silver production in 1986 was estimated at 1 219 050 kg valued at \$310 million, compared with 1 197 072 kg valued at \$334 million in 1985 and 1 326 720 kg valued at \$462 million in 1984. Unlike the price of gold, silver prices did not recover during 1986 and this explains the higher production but lower value in 1986 when compared with 1985.

Canada is the world's fifth largest producer of silver after Mexico, Peru and the Soviet Union. Other major producers include Australia, United States and Poland.

The main source of Canadian silver production is as a byproduct of base metal mining operations which account for 75%. The remainder comes from silver and gold mines.

Ontario, the leading silver-producing province, accounted for 35% of Canadian production. Its silver comes mainly from base metal mines but a significant portion comes from the silver mines near Cobalt. British Columbia is also an important silver producer, accounting for 33% of Canadian production. Its production comes mainly from lead-zinc mines and one large silver mine. New Brunswick and Yukon are the next most important of the Canadian producers, accounting for 17% and 5% of production, respectively.

Most mine production of silver is recovered and refined at plants at Trail, BC, Sudbury and Cobalt, Ont. and Montreal, Que. However, some is exported as a constituent of nonferrous metal concentrates for processing in other countries.

Silver prices remained depressed in 1986, averaging US\$5.47 (Cdn\$7.57) per ounce, down from US\$6.17 in 1985 and US\$8.14 in 1984.

**Lead.** Lead is mined mainly as a co-product of zinc at polymetallic mines in Canada. Canada is the third largest mine producer of lead and fifth largest lead metal producer in the western world, with 11% and 6% of mine and metal production, respectively. Mine production of lead in concentrates rose to over 296 000 t in 1986 compared with levels of around 250 000 t to 285 000 t from 1983 to 1985, partly because of the reopening of the large lead-zinc mine at Faro, Yukon. Exports of lead in concentrates, mainly to Europe, Japan and the US, were also boosted as a result, from 20-35% to approximately 40% of mine production. The remainder was processed at Canada's two primary lead smelters/refineries with nominal production capacities of 145 000 tonnes per year (tpy) and 72 000 tpy of lead metal, respectively, at Trail, BC and Belledune, NB.

Annual production of refined lead from concentrates consistently remained just over 170 000 t between 1983 and 1986. Lead metal production from recycled batteries and other lead scrap contributed a further 70 000 tpy. Domestic consumption of lead metal, as measured by producers' shipments, ranges from 100 000 to 120 000 tpy. Some two-thirds of lead is used in lead-acid batteries. Other uses include solder, tetraethyl lead and semi-fabricated products. The major export markets for refined and alloyed metal are the US and Europe.

Aside from the reopening of the Faro, Yukon mine in June 1986, two major recent developments are notable. The Little River Joint Venture of Heath Steele Mines Limited in New Brunswick has been closed since 1983, and modernization of the lead smelter at Trail, BC began in 1986. The first phase, installation of a new 160 000 tpy furnace, is scheduled for completion in 1989.

In 1986 there were six major mine producers of lead, located in New Brunswick, British Columbia, Yukon and Northwest Territories. Eight polymetallic mines which produced minor amounts of lead are located in Ontario, Manitoba, British Columbia and Yukon.

**Platinum group metals.** The platinum group, which includes platinum, palladium, rhodium, ruthenium, iridium and osmium, occur in nature in close association and are chemically similar in many respects. Platinum and palladium are the most important members of the group in terms of both production and variety of uses.

Canada, the third largest producer of platinum group metals (PGMs) behind South Africa and the Soviet Union, accounts for about 4% of total world production. Canadian production in 1986 was estimated at 8.8 million grams, down from 10.5 million grams in 1985.

Platinum group metals are produced in Canada by two companies as byproducts from the mining of nickel-copper ores. Although the bulk of the PGMs are recovered from operations in the Sudbury, Ont. basin, small amounts of these metals are also produced at Thompson, Man.

The residue from the refining of nickel-copper matte, which contains platinum group metals, is shipped by one company to its refinery at Acton in the United Kingdom for the extraction and refining of PGMs. The other company ships a nickel-copper matte containing PGMs to its refinery at Kristiansand, Norway.

While the use of the PGMs, particularly platinum, in jewellery is important, their principal applications are industrial in nature. The

unique attributes of the PGMs, including remarkable catalytic properties, chemical inertness, stability as electrical contacts and resistance to high temperature oxidation, make them indispensable in many industrial applications.

One of the largest single uses for PGMs is in the production of automobile exhaust catalysts. This use is expected to increase significantly in the future as governments move to introduce or improve automobile emission standards.

As a result of continuing political and labour problems in South Africa, prices rose dramatically during 1986, with platinum and palladium reaching US\$665 and US\$151 per ounce, respectively. Average 1985 prices were US\$192.47 for platinum and US\$107.76 per ounce for palladium.

Due to rising world prices, PGM exploration in Canada and several other countries intensified during 1986. While preliminary exploration has identified areas of significant potential in Canada, there will be additional investigation before development can proceed.

**Molybdenum.** Canada ranks fourth among the world's leading molybdenum producers, accounting for about 15% of the western world's total supply. Over 95% of Canada's molybdenum is produced in British Columbia; Quebec is the only other producing province. Ontario and New Brunswick mines have installed capacities during the last two years for the recovery of by-product molybdenum at some time in the future.

Canadian mine shipments in 1985 were at the lowest level since the mid-1960s, a result of the closure of three primary mines and several byproduct producers. In 1986, however, shipments increased by 64% to 12 914 t. The large increase was primarily due to the reopening of one large primary mine and the return to full production at a byproduct producer that was reopened late in 1985.

Canada is one of the world's major exporters of molybdenum, shipping most of its annual output to Western Europe and Japan.

**Cobalt.** Canada is the world's fourth largest producer of cobalt, behind Zaire, Zambia and the Soviet Union. In 1986, Canada produced about 2 500 t of cobalt valued at \$56 million, compared to 2 100 t valued at \$72 million in 1985.

Cobalt is recovered as a byproduct of nickel-copper production. Mines are in operation at Sudbury, Ont. and Thompson, Man. At Port Colborne, Ont., a cobalt refinery which has a capacity of 900 tpy of electrolytic cobalt rounds is in operation. The refinery was opened in 1983 and high quality cobalt metal is produced for use primarily in making superalloys. A refinery

at Fort Saskatchewan, Alta. toll and custom refines cobalt obtained from other producers, mostly abroad.

A major use for cobalt is in superalloys where it improves the strength, wear and corrosion resistance of the alloys at elevated temperatures. The major application of cobalt-base superalloys is in turbine blades for aircraft jet engines and gas turbines for gas pipelines. Cobalt-based superalloys normally contain 45% or more cobalt.

Other important uses for cobalt are in magnets and abrasion-resistant and heat-resistant tools. Cobalt is also used to promote the adherence of enamel to steel in applications such as appliances, and of steel to rubber in the manufacture of steel-belted tires.

**Magnesium.** Canada's only existing producer of primary magnesium operates an 11 000 tpy reduction facility at Haley, Ont. about 80 km west of Ottawa. A four-year expansion and modernization program announced during 1986, is expected to increase magnesium production by 50%.

In October 1986, a Norwegian company formally announced that it would build a new 60 000 tpy magnesium smelter at Bécancour, Que. This new facility, on which construction was expected to begin in the spring of 1987, should be completed by 1989 at a cost of \$400 million.

The largest single use for magnesium is as an alloying agent for aluminum. The addition of magnesium to aluminum imparts greater tensile strength, increased hardness and better corrosion resistance. The second largest use for magnesium is for structural applications of which pressure diecast products constitute the most important component. While the number of diecast products, particularly auto parts, is growing, increased magnesium usage is constrained by its high cost relative to competing aluminum. During 1986, the quoted price for magnesium ingot was US\$1.53 per pound.

**Columbium.** Canada is the second largest producer country of columbium, with an annual output of about 15% of the world's total supply. Production increased by 12% in 1985 and another 6% in 1986. Canada's concentrate is produced at Chicoutimi, Que. from pyrochlore ore, one of the three pyrochlore operations in the world; the other two are in Brazil.

Canada became the only major supplier of columbium concentrate following a decision by the Brazilian producers in 1981 to convert all their output to intermediate products.



Development work continued on a rare metal deposit that includes columbium and tantalum near Great Slave Lake, NWT. A feasibility and marketing study is scheduled for completion in 1987.

**Tantalum.** Production of tantalum at Bernic Lake, Man. remained suspended in 1985 and 1986 due to high inventories and low market prices. Small shipments, however, were made from existing stockpiles. The mine was the world's largest supplier of tantalum concentrate prior to its shutdown in 1982.

**Cadmium.** Metallic cadmium is recovered as a byproduct at electrolytic zinc plants at Trail, BC, Flin Flon, Man., Timmins, Ont. and Valleyfield, Que. Total capacity of these plants to produce primary cadmium metal is 1 800 tonnes per year. Cadmium is used mainly for coating iron and steel products to protect them against oxidation and to give them a desirable aesthetic appearance. Other major uses are in pigments, chemicals and rechargeable batteries.

Production in all forms decreased from 1 605 t, valued at \$7.8 million in 1984, to an estimated 1 421 t valued at \$5.4 million in 1986. Most zinc ores in Canada and zinc concentrates contain recoverable cadmium. The largest production comes from mines in Ontario, British Columbia and Northwest Territories.

**Tungsten.** Canada produced 1 200 t of tungsten in ores and concentrate in 1986 compared to 3 005 t in 1985. This reduction was due to the closure of the mining corporation at Tungsten, NWT, in May 1986, as a result of labour problems, weak markets and low prices. The Tungsten, NWT mine was the only remaining producer of tungsten in Canada. Development of the tungsten deposit at Mactung, located 200 km to the north of Tungsten has been delayed.

**Tin.** Until recently, Canada was regarded principally as a tin consumer rather than a tin producer, although small amounts of tin concentrate were recovered as a byproduct of base metal mining at Kimberley, BC.

Canada relies on imports for its tin metal requirements except for small amounts recovered from recycled solders and detinning, and in primary tin lead alloys production. Consumption had been falling for several years but this trend was reversed in 1984 when consumption grew by almost 20% to 4 076 t. Increased consumption was especially noted in tin plate produced by two large Canadian steelmakers. Consumption dropped slightly in the last two years.

Canada's first major tin mine started production at East Kemptville, NS in 1986, reaching

full capacity in September. Production at the mine totalled about 2 375 t of tin contained in concentrate.

Unfortunately, tin prices collapsed early in 1986, following the cessation of price-stabilizing measures of the International Tin Council in October 1985. Following this collapse, ownership of the Nova Scotia mine was handed to the banks that had financed the project. Although operations are continuing, a decision on the future of the mine has not yet been announced.

Shortly after it became clear in March 1986 that a negotiated settlement could not be reached to end the tin crisis, tin prices fell from an average of US\$5.65 in 1985 to US\$2.40/lb. In October, however, prices showed some strength and closed the year just below US\$3.00/lb. This was an unexpected improvement given poor market fundamentals.

## 10.4 Non-metallics

**Asbestos.** Canada ranked second after the USSR in world asbestos production in 1986 and accounted for less than 20% of world output. Canadian shipments of asbestos fibre were 640 000 t valued at \$300.6 million, continuing a downtrend since 1979 when shipments were 1.49 million tonnes valued at \$607 million. All Canadian production consists of chrysotile asbestos and in 1986 about 80% was from Quebec, 13% from British Columbia and 7% from Newfoundland.

Canada is the world's largest exporter of asbestos, shipping about 95% of its production to more than 70 countries. The United States and Japan are the largest markets, accounting for more than one-third of Canadian exports.

General weakness in markets persists because of product substitution, competition from other asbestos producers and adverse publicity arising mainly from health hazards associated with past exposure to asbestos dust in the workplace.

The International Labour Organization, representing about 140 countries, voted overwhelmingly in favour of the international convention on safety in the use of asbestos. This marks an important turning point in the international controversy over asbestos use as it serves to emphasize that, with proper controls and regulations, chrysotile asbestos can be used safely.

Future demand for asbestos will depend mainly on the degree to which world public opinion regards asbestos as a continuing health problem, and the Canadian asbestos industry's ability to meet competition by further reducing production costs.



**Clay and clay products.** Since 1982, the value of shipments of clay and clay products has been increasing steadily, by an average growth rate of 17.1% annually. In 1986, shipments amounted to \$180.4 million, an increase of 30% over 1985, due mainly to higher levels of activities in Ontario, Quebec and British Columbia. During 1986, rationalization of the clay brick industry resulted in fewer but larger corporations. Several potential sources of kaolin have been investigated in southern Saskatchewan and northern Ontario. These silica sand-kaolin deposits could be mined by open-pit and produce china clay suitable for the paper and the paint industries in Ontario, Western Canada and northwestern United States.

**Potash.** Canada is the world's largest exporter of potash. Shipments in 1986 were 7.0 million tonnes (potassium dioxide equivalent) valued at \$579 million, down because of the recession from a peak of 7.2 million tonnes (\$1,020 million) in 1980. In 1986 the industry operated at 65% capacity. There are eight mines in Saskatchewan, with four controlled by the Saskatchewan Potash Corp., a provincial government Crown corporation directing 40% of capacity.

In New Brunswick the first potash mine was put into production in 1983 and a second mine went into production in 1985.

About 95% of world potash output of 27.5 million tonnes is used in fertilizer, the balance for industrial purposes.

**Salt.** Rock salt is produced at four underground mines located in Ontario, Quebec and Nova Scotia and as a byproduct from two potash mines in New Brunswick and Saskatchewan. Brine is also produced in 11 plants for the manufacture of evaporated salt and chloralkalies.

Canada is the world's fifth largest producer of salt with shipments amounting to 11 million tonnes in 1986, an increase of 10% over 1985; the value of shipments rose by 12% to \$242 million. Approximately 50% of the total consumption of salt was used for the manufacture of chloralkalies and 45% for ice and snow control on streets and highways. Rock salt accounted for 66% of total salt shipments. About 26% of total production is exported, almost totally to the United States. Ontario is the major producer of salt, accounting for 60% of total production, followed by Alberta and Quebec.

**Sulphur.** Canada has been the world's largest exporter of elemental sulphur since 1968. Shipments peaked in 1985 at 8.9 million tonnes valued at \$1.1 billion. In 1986, shipments declined to 7.6 million tonnes valued at \$994 million. The

price of elemental sulphur reached a record high of US\$140 a tonne f.o.b. (free on board) Vancouver in 1985 and declined to about US\$125 at the end of 1986.

Canadian sulphur in elemental form is obtained as a byproduct in the production of sour natural gas, in the extraction of oil from tar sands and in the refining of petroleum. Sulphur dioxide, produced in the roasting of sulphide ores of nickel, copper, zinc and lead, is recovered as byproduct liquid sulphur dioxide and as sulphuric acid at several Canadian smelters. In addition to these involuntary producers of sulphur, a small amount of pyrrhotite is roasted expressly for sulphuric acid.

In 1985 and 1986 about 90% of sulphur shipments were in elemental form with 80% going offshore and more than half the remainder going to the United States.

Canadian production of sulphur peaked at 7.1 million tonnes in 1973. Yet during the period 1968 to 1978 production exceeded shipments by such an amount that stockpiles of elemental sulphur reached 21 million tonnes. Since 1979 stocks have been reduced to 7.0 million tonnes as shipments have exceeded production and reduction of stockpiles is expected to continue. While production of sulphur from sour gas and other sources will remain relatively stable, the demand for sulphur will continue to increase.

**Nepheline syenite.** Canada is the western world's largest producer and exporter of nepheline syenite, from two operations on Blue Mountain, 40 km northeast of Peterborough, Ont. Shipments totalled 467 000 t in 1985 and 485 000 t in 1986. Value of shipments were, respectively, \$17.9 million and \$20.4 million.

Most production is exported to the United States. Nepheline syenite is preferred to feldspar as a source of essential alumina and alkalis in glass manufacture. Other uses include the manufacture of ceramics, enamels, paints, papers, plastics and foam rubber.

## 10.5 Structural materials

In 1986, total value of construction in Canada was approximately \$63,000 million, up approximately 4% from 1985. In 1986, construction represented 13% of Gross National Product. Housing starts in 1986 were approximately 185,000 units, up 11.4% from 1985.

**Gypsum.** Canada supplied over 25% of US requirements for crude gypsum. Canadian production in 1986 was approximately 8.5 million tonnes.

**Cement.** The Canadian industry has capacity to produce 17.9 million tonnes from a total of 23 plants. In 1986, cement production was 10.0 million tonnes which represents a capacity utilization of 57%. Plants utilizing the dry process constitute over 70% of Canadian capacity.

**Mineral aggregates.** Production of mineral aggregates, sand, gravel and crushed stone in 1986 was approximately 334 million tonnes.

## 10.6 Manufactured metals

**Aluminum.** Canada is the second largest aluminum producer in the western world. Canadian output of aluminum in 1986 was estimated at 1.35 million tonnes. Since Canada consumes only about 500 000 t per year, it is the largest aluminum exporter in the world. The United States is the largest market for Canadian aluminum exports, with 1986 shipments to that market estimated at 850 000 t.

Three companies operate primary aluminum smelters in Canada. One company has five smelters in Quebec at Jonquière, Isle-Maligne, Grande Baie, Beauharnois and Shawinigan, and one at Kitimat, BC with a combined annual capacity of 1 075 000 t. The company also operates an alumina refinery at Jonquière; its output is consumed by the company's smelters in the region. The other two companies each operate one smelter in Quebec; one at Baie-Comeau, with a capacity of 272 000 tpy, and the other at Bécancour. The latter plant was officially opened in September 1986 and was expected to reach its full operating capacity of 230 000 tpy by the end of February 1987.

With abundant supplies of hydroelectric power, Canada is one of the lowest cost aluminum-producing nations in the world. Despite this advantage, several aluminum smelter developments in Canada have been cancelled or postponed due to depressed market conditions. While the aluminum price averaged 52 cents US per pound in 1986, an improvement over levels recorded in 1985, significant improvement in the market will be required before any new smelter projects can proceed.

**Iron and steel.** Canadian steel mills produced 13.9 and 13.3 million tonnes of crude steel in 1985 and 1986, respectively. The operating rate averaged 67% of capacity in 1985 and 66% in 1986. Employment, averaged over the year, declined to 47,438 in 1985 compared to 49,868 in 1984; in November 1986, it was 45,232.

Capital spending intentions for construction and equipment was \$424.1 million in 1985, a

considerable increase from the \$228.3 million spent in 1984. Capital expenditure intentions for 1986 were \$661.1 million. Most steel companies continued to modernize their facilities, including the addition of five continuous casters which were under construction or committed for construction. By 1990, approximately 95% of the steel produced in Canada will be continuous cast. There were also several expenditures for ladle refining stations which will allow much greater control of the chemical composition of the steel produced.

Exports, predominately to the United States, accounted for about 25% of shipments in both years.

The world overcapacity in steel persisted and the availability of low-priced imported steel depressed domestic prices. Steel products from a number of countries were subjected to anti-dumping duties.

Two associations were created to address a number of serious problems faced by the Canadian steel industry and its workforce. The Canadian Steel Trade Conference Inc. was formed in 1985 and the Canadian Steel Producers Association in 1986.

Canada announced that effective September 1, 1986 carbon steel products were placed on the control list for a period of three years. Although this action did not limit the quantity of carbon steel products that could be imported into Canada, it did provide a means to monitor imports in greater detail.

## 10.7 Government and the industry

### 10.7.1 Tax incentives

Although mineral industry enterprises are subject to federal income tax, certain benefits granted under the Income Tax Act serve as incentives to exploration and development. Up-to-date information on income tax allowances which apply to the mining industry may be obtained from Revenue Canada, Taxation and appropriate provincial tax offices.

### 10.7.2 Technical services

The provinces own the natural resources within their borders and control exploration, development, conservation and primary production of mineral resources. Provinces support mining activities by supplying geoscientific data, mainly in the form of maps and reports. In general, a wide range of programs is available to stimulate the industry, although there is variation from province to province. They issue prospecting

permits, record mining claims and supply mine inspection services.

The federal government complements many of these services in consultation with the provinces. Federal-provincial mineral development agreements are a prominent vehicle for co-operation.

## 10.8 Mining legislation

### 10.8.1 Federal jurisdictions

The matter of legislative jurisdiction, in relation to the exploration and exploitation of mineral resources, offshore of the East and West Coasts of Canada has not been totally resolved. The Supreme Court of Canada, in an opinion of November 1967, stated in part that, as between Canada and the province of British Columbia, Canada has proprietary rights in and legislative jurisdiction over "lands, including the mineral and other natural resources, of the seabed from the ordinary low-water mark on the coast outside the harbours, bays, estuaries and other similar inland waters, to the outer limit of the territorial sea of Canada". In May 1982, the Supreme Court of Canada ruled that between Canada and Newfoundland, legislative jurisdiction in respect of the mineral resources of the seabed and the sub-soil of the continental shelf offshore of Newfoundland, in the region of the Hibernia oil discovery, falls to Canada.

Some near-shore coastal waters fall under provincial jurisdiction. In 1984, the Supreme Court of Canada ruled that the seabed of the Strait of Georgia falls within the boundaries of the province of British Columbia as established at the time of the colony of Vancouver Island and has remained unchanged since that date.

The Department of Energy, Mines and Resources (EMR Canada) has responsibility for administration and enforcement of legislation and regulations relating to mineral resources off Canada's coasts, in the Hudson Bay and Hudson Strait regions, and for federally owned mineral rights that become available for development in the provinces. The Department of Indian and Northern Affairs (INA Canada) is responsible for mineral rights in the Yukon and Northwest Territories, and in Canada's Arctic offshore regions.

Generally, the administration and management of mineral resources and rights on and/or beneath Indian reserves is the responsibility of INA Canada. Minerals can be disposed under the mining, or oil and gas regulations by either tender or negotiated agreement, following the respective Indian band approval.

### 10.8.2 Federal mining laws and regulations

Mining exploration and development is carried out in Yukon under the Yukon Quartz Mining Act and the Yukon Placer Mining Act. In Northwest Territories, including Arctic coastal waters, operations are governed by the Canada mining regulations. Regulations for placer-gold dredging, coal mining and quarrying are common to both territories. In Yukon, mining rights may be acquired by staking claims. A one-year lease may be obtained to prospect for the purposes of placer mining, renewable for additional one-year periods; a 21-year lease, renewable for a like period, may be obtained under the Yukon Quartz Mining Act.

Under Canadian mining regulations, a prospector must be licensed. Staked claims must be converted to lease or relinquished within 10 years. In certain areas, a system of exploration over large areas is allowed by permit. Any individual 18 years of age or more or any joint stock company in Canada may hold a prospector's licence. No lease is granted to an individual unless the applicant is a Canadian citizen. No lease is granted to a corporation unless it is incorporated in Canada and at least 50% of the issued shares are owned by Canadian citizens or the shares are listed on a recognized Canadian stock exchange. A new mine beginning production is not required to pay royalties for 36 months.

### 10.8.3 Provincial laws and regulations

In general, Crown mineral lands within provincial boundaries (with the exception of those in Indian reserves, national parks and other lands under federal jurisdiction) are administered by the province. Mineral rights on Crown lands may be acquired or leased from the province, if not already held by others.

Crown land purchases or grants currently do not include the mineral rights, which reside with the province. Some early land grants in the four western provinces, and in Quebec, New Brunswick and Newfoundland included certain mineral rights which can be conveyed along with the land to a purchaser. Otherwise mineral rights must be acquired separately from the owner or leaseholder thereof if in private hands, or acquired or leased from the province if in the public domain. However, there are some exceptions, mainly surface minerals, which the land owner retains, as explained under the heading "Quarrying regulations" following. In Nova Scotia this exception is broadened, where the land owner retains the mineral rights to gypsum,



agricultural limestone and building materials. Mining activities may be classified as placer, general minerals (veined minerals and bedded minerals), fuels (coal, petroleum and gas) and quarrying.

In provinces where placer deposits occur, regulations define the size of placer holdings, the terms under which they may be acquired and the royalties to be paid.

**General minerals** are sometimes described as quartz, lode, or minerals in place. The most elaborate laws and regulations apply in this division pertaining to prospector or miner licences to search for mineral deposits, staking and recording claims, time limits, recording fees where required, work of a specified cost to be performed in some provinces, and renewals of development licences. Mining taxation is applied most frequently as a percentage of net profits of producing mines.

**Coal, petroleum and natural gas.** In provinces where coal occurs, specifications include the size of holdings, and their conditions of work and rental. In the search for petroleum and natural gas, an exploration permit or reservation is usually required; in Saskatchewan, Alberta and British Columbia leases usually follow when a discovery of oil or gas is made; exploration costs may be applied to the lease rental. In other provinces, discovery of oil or gas is usually a prerequisite to obtaining a lease or grant of a limited area, subject to carrying out drilling obligations and paying a rental, a fee, or a royalty on production.

**Quarrying regulations** define the size of holdings and the terms of lease or grant concerning quarriable substances (ordinary stone, building and construction stone, sand, gravel, clay, limestone and peat moss). In several provinces, such substances belong to the owner of the land, but regulations vary. For further details on quarrying regulations and other mining information mentioned in this section, refer to provincial mining legislation.

## 10.9 Energy, Mines and Resources Canada

The Department of Energy, Mines and Resources was created in October 1966 from the former department of mines and technical surveys. It has jurisdiction over federal matters related to energy, mines, minerals and other non-renewable resources, technical surveys and explosives. The department is responsible for federal mineral and energy policies and for conducting technical

surveys and research related to mineral and energy resources. The surveys and research are conducted in three sectors: research and technology, earth sciences and energy.

### 10.9.1 Research and technology

This sector is responsible for research and development in mining, minerals, metals and fuels technologies, remote sensing and explosives. The work is conducted in-house and by contract in three branches: the Canada Centre for Mineral and Energy Technology (CANMET), the Canada Centre for Remote Sensing (CCRS) and the Explosives Branch.

**CANMET.** Since its inception in 1907, the Canada Centre for Mineral and Energy Technology (CANMET), has provided scientific and technological support to the Canadian mineral and energy industries through production and protection technology oriented programs.

The CANMET program in mining R&D concentrates on mine design and the environmental safety of mine workers. It includes research on rock mechanics, the development of mining methods and better and safer mining equipment, explosives testing, mining environments, the certification of equipment, fire and explosive hazards, tailings control, and assessment of uranium and coal reserves.

The branch is also responsible for research, development, evaluation and assessment of new technologies which will provide a more complete recovery and upgrading of Canadian ores in a safe and environmentally acceptable manner. Mineral processing programs focus on the efficient extraction of metal from complex concentrates or low grade ores, computerized techniques for increasing plant efficiencies, and the recovery of byproducts.

R&D on fossil fuels is directed toward improving coal recovery and reducing sulphur emissions, increasing the yield of liquid product and ensuring that the products can be incorporated into the conventional oil supply and refining systems without major changes in refining practices. Technologies investigated include the upgrading of oil sands, heavy oil and synthetic crude production, coal combustion and carbonization, coal gasification and liquefaction, and the improvement of oil and gas domestic heating furnaces.

CANMET investigates the performance of metals and develops new processing and fabricating techniques in order to increase productivity and decrease pollution and energy consumption in metallurgical processes. CANMET research



specifically directed toward the development of materials for mining equipment and all modes of transportation. This includes developing superior steel for ships' hulls, offshore structures and pipelines, new alloys for ships' propellers, and special forging and casting of metals and ceramics for the automotive and aircraft industry.

The branch operates pilot scale facilities and special research instruments that are beyond the normal requirements of individual companies for day-to-day use but which are made available to companies on a cost-recovery basis. These special facilities include a rolling mill, an experimental foundry, a mineral processing plant, mobile coal preparation plants, special analytical equipment and the largest rock press in Canada.

**Canada Centre for Remote Sensing (CCRS)**, a branch of the department, co-ordinates a remote sensing program in co-operation with federal and provincial departments, private industry and universities. The program develops and demonstrates systems, methods and instruments to deal with remote sensing data from satellites and aircraft, to develop an information system for Canada's land and ocean resource managers. It concentrates on satellite remote sensing, airborne remote sensing and an application program. Its analysis facilities are made available to scientists and users of remote sensing data and techniques. An aircraft carrying a number of state-of-the-art sensors, such as a synthetic aperture radar, is available to users across Canada on a cost-recovery basis.

CCRS is the federal agency responsible for R&D in remote sensing by optical, infra-red and radar methods, both active and passive. After the branch acquires remotely sensed data from satellites such as SPOT and aircraft, it processes the data to provide information relating to mineral resources, agriculture, forestry, land use and Arctic navigation. CCRS also fosters Canadian industrial capability in ground receiving stations for satellite data reception and the development of remote sensing technology.

**Explosives Branch.** The department controls, under the Canada Explosives Act, the authorization, manufacture, storage, sale and importation of explosives. Responsibility for control of road transportation of explosives still rests partly with the department but is being transferred to the Department of Transport.

### 10.9.2 Earth sciences

This sector assists the oil, gas and mineral industries through the Geological Survey of Canada, the Surveys and Mapping Branch and the Polar Continental Shelf Project.

The **Geological Survey of Canada** provides geological, geophysical and geochemical knowledge, technology and expertise of the Canadian landmass including the underlying solid earth and offshore areas. These activities are required for the effective exploitation of mineral and energy resources, the estimation of the resource base of Canada, the public safety and security of Canadians and the formulation of policies. Systematic geological studies, and magnetic, radiometric and geochemical surveys are carried out to define geological settings favourable to mineral and fuel occurrences of interest to industry. A network of seismological observatories provide data to assess earthquake risk and hazards. Gravity, seismic and electromagnetic surveys provide data to study the structure of the earth's crust. Together with data from geomagnetic observatories, reference fields and forecasts of geomagnetic disturbance are also provided. The Geological Survey provides information on land resources, terrain performance and geological hazards, derived from studies of earth and rock materials, land forms and associated dynamic processes. Part of the geological investigation deals with Canada's offshore regions including non-renewable resources and coastal and seabed conditions.

The **Surveys and Mapping Branch** has completed topographical mapping of Canada. Through a basic network of survey control points across Canada, the branch provides precise figures of latitude, longitude and elevation above sea level. The branch also produces multicoloured maps for other government agencies, aeronautical charts and atlases. A national air photo library has on file over 4 million aerial photographs, both black and white and colour, taken over the last half century from aircraft and more recently from space satellites.

The **Polar Continental Shelf Project** co-ordinates and provides logistics support for all field work undertaken in the Canadian Arctic by government, and many non-government scientific researchers.

### 10.9.3 The energy sector

This is a policy recommending group. Some responsibilities relate directly to the mining industry and many other parts of the economy. It assesses individual projects in relation to each energy source and the interrelationships of the several sources. It appraises trends in oil and gas exploration and production, transportation, processing and marketing in Canada and abroad, and informs federal agencies, industry and the public on oil and gas developments. In the

uranium field, the sector co-ordinates resource assessment and development, establishment of enrichment facilities and export. It provides coal research and development grants, makes resource assessments and advises on production expansion rates. The sector administers federally owned mineral rights in the provinces. (See Chapter 11, Energy.)

**Sources**

- 10.1 Information Systems Division, Resource Strategy and Information Branch, Mineral Policy Sector, Energy, Mines and Resources Canada (EMR Canada).
  - 10.2 Regional and Intergovernmental Affairs Division, Mineral Strategy Branch, Mineral Policy Sector, EMR Canada.
  - 10.3 – 10.6 Mineral and Metal Commodities Branch, Mineral Policy Sector, EMR Canada.
  - 10.7 Economic and Financial Policy Analysis Branch, EMR Canada.
  - 10.8 – 10.9 Minerals, Earth Sciences and Technology Communications Branch, EMR Canada.
- Co-ordinator, Lois Lemay.

# TABLES

.. not available  
 ... not appropriate or not applicable  
 — nil or zero  
 -- too small to be expressed

e estimate  
 p preliminary  
 r revised  
 certain tables may not add due to rounding

## 10.1 Value of mineral production<sup>1</sup>

Year	Total value \$'000	Value per capita \$	Year	Total value \$'000	Value per capita \$	Year	Total value \$'000	Value per capita \$
1886	10,221	2.23	1930	279,874	27.42	1975	13,346,994	588.05
1890	16,763	3.51	1935	312,344	28.84	1980	31,841,758	1,331.49
1895	20,506	4.09	1940	529,825	46.55	1981	32,410,481	1,328.62
1900	64,421	12.15	1945	498,755	41.31	1982	33,831,494	1,373.59
1905	69,079	11.51	1950 <sup>2</sup>	1,045,450	76.24	1983	38,539,005	1,548.62
1910	106,824	15.29	1955	1,795,311	114.37	1984	43,789,031	1,742.91
1915	137,109	17.18	1960	2,492,510	139.48	1985	44,733,540	1,762.55
1920	227,860	26.63	1965	3,714,861	189.11	1986 <sup>p</sup>	33,854,397	1,321.51
1925	226,583	24.38	1970	5,722,059	268.68			

<sup>1</sup> Includes fuels.

<sup>2</sup> Value of Newfoundland production included from 1950.

## 10.2 Value of mineral production<sup>1</sup>, by class, selected years, and by province, 1982-86 (thousand dollars)

Year and province or territory	Metallics	Non-metallics	Structural materials	Other minerals	Total
1970	3,073,344	480,538	450,446	...	4,004,328
1975	4,795,476	939,180	958,982	...	6,693,639
1980	9,696,956	2,532,361	1,668,577	...	13,897,894
1981	8,753,468	2,843,394	1,767,988	...	13,364,850
1982	6,874,197	1,973,801	1,729,584	215,536	10,793,118
1983	7,398,944	1,907,209	1,833,973	244,772	11,384,898
1984	8,670,372	2,366,529	1,951,483	401,405	13,389,789
1985	8,709,411	2,737,374	2,125,219	41,114	13,613,118
1986 <sup>p</sup>	8,944,159	2,668,790	2,200,508	36,511	13,849,968
1982					
Newfoundland (incl. Labrador)	613,781	14,720	18,261	—	646,762
Prince Edward Island	—	—	1,774	—	1,774
Nova Scotia	—	70,730	44,192	26	114,948
New Brunswick	409,832	15,324	43,241	20	468,417
Quebec	1,220,024	349,062	361,824	133,541	2,064,451
Ontario	2,315,928	140,938	603,290	31,556	3,091,712
Manitoba	353,150	11,798	70,976	4,527	440,451
Saskatchewan	268,911	694,689	46,695	1,870	1,012,165
Alberta	162	580,223	317,650	—	898,035
British Columbia	1,140,455	96,317	178,381	1,781	1,416,934
Yukon	168,570	—	550	—	169,120
Northwest Territories	383,384	—	42,750	42,215	468,349
1983					
Newfoundland (incl. Labrador)	752,370	23,398	31,235	—	807,003
Prince Edward Island	—	—	726	—	726
Nova Scotia	—	67,723	46,774	—	114,497
New Brunswick	421,281	16,633	38,385	15	476,314
Quebec	1,169,797	383,855	363,568	121,736	2,038,956
Ontario	2,673,080	165,577	686,580	97,966	3,623,203
Manitoba	486,532	11,809	72,266	9,159	579,766
Saskatchewan	145,677	704,490	45,739	1,487	897,393
Alberta	260	443,387	279,178	—	722,825
British Columbia	1,191,846	90,337	221,004	843	1,504,030
Yukon	61,549	—	1,438	—	62,987
Northwest Territories	496,552	—	47,080	13,566	557,198

### 10.2 Value of mineral production<sup>1</sup>, by class, selected years, and by province, 1982-86 (thousand dollars) (concluded)

Year and province or territory	Metallics	Non- metallics	Structural materials	Other minerals	Total
1984					
Newfoundland (incl. Labrador)	920,165	34,873	24,186	—	979,224
Prince Edward Island	—	1,109	805	—	1,914
Nova Scotia	—	68,453	73,136	—	141,589
New Brunswick	485,981	43,549	42,178	11,406	583,114
Quebec	1,220,467	342,455	422,317	181,938	2,167,177
Ontario	3,314,898	219,431	753,711	162,747	4,450,787
Manitoba	532,158	14,723	86,422	9,157	642,460
Saskatchewan	379,562	904,363	44,483	2,069	1,330,471
Alberta	247	621,915	250,318	472	872,952
British Columbia	1,085,766	115,658	207,882	2,479	1,411,785
Yukon	65,038	—	5,105	—	70,143
Northwest Territories	666,090	—	40,940	31,137	738,167
1985					
Newfoundland (incl. Labrador)	815,845	27,980	25,902	—	869,727
Prince Edward Island	—	—	1,917	—	1,917
Nova Scotia	—	81,708	76,051	—	157,759
New Brunswick	359,501	67,527	46,011	4,232	477,271
Quebec	1,303,927	502,490	436,857	—	2,243,274
Ontario	3,461,405	219,104	859,942	683	4,541,134
Manitoba	571,535	15,579	93,486	832	681,432
Saskatchewan	471,494	650,977	51,316	1,764	1,175,551
Alberta	396	1,031,441	296,484	480	1,328,801
British Columbia	1,080,463	128,636	224,843	793	1,434,735
Yukon	56,807	267	2,995	—	60,069
Northwest Territories	588,038	11,665	9,415	32,330	641,448
1986 <sup>P</sup>					
Newfoundland (incl. Labrador)	710,747	26,685	26,737	—	764,169
Prince Edward Island	—	—	1,700	—	1,700
Nova Scotia	—	86,576	75,833	17,764	180,173
New Brunswick	346,245	114,255	38,801	17	499,318
Quebec	1,253,553	559,807	462,390	—	2,275,750
Ontario	3,543,038	244,579	926,412	1,954	4,715,983
Manitoba	541,220	19,290	102,201	1,041	663,752
Saskatchewan	459,491	556,886	50,117	1,763	1,068,257
Alberta	410	917,808	267,473	306	1,185,997
British Columbia	1,284,193	135,397	234,469	1,038	1,655,097
Yukon	174,716	117	8,700	—	183,533
Northwest Territories	630,546	7,390	5,675	12,628	656,239

<sup>1</sup> Excludes fuels.

### 10.3 Gross domestic product at factor cost, in 1981 prices, principal mining industries (billion dollars<sup>1</sup>)

Mining industry	1981	1982	1983	1984	1985	1986 <sup>P</sup>
Metal mines						
Placer gold and gold quartz	487.0	655.7	732.9	797.7	907.1	1,114.8
Iron	820.7	559.5	528.1	637.6	711.1	685.7
Other metal mines	2,514.6	2,134.8	2,229.6	2,545.7	2,495.5	2,551.7
Non-metal mines (except coal)						
Asbestos	358.3	248.7	243.3	240.5	244.8	191.5
Mineral fuels						
Coal	466.3	436.9	447.3	656.5	703.2	620.5
Crude oil and natural gas	9,786.9	9,836.1	10,115.2	10,618.1	11,141.8	10,879.1
Total, mines (incl. milling) quarries and oil wells	17,453.5	16,462.9	17,019.4	18,968.4	19,901.4	19,106.4

<sup>1</sup> 1981 dollars.



10.4 Quantity and value of mineral production<sup>1</sup>

Mineral		Quantity ('000)				
		1982	1983	1984	1985	1986 <sup>P</sup>
Metallics						
Antimony	kg	..	385	554	1 075	3 900
Bismuth	"	189	253	166	201	260
Cadmium	"	886	1 193	1 754	1 717	1 421
Calcium	"	—	—	—	—	—
Cobalt	"	1 274	1 410	2 123	2 067	2 486
Columbium (Cb <sub>2</sub> O <sub>3</sub> )	"	3 086	1 745	2 767	..	..
Copper	"	612 455	653 040	721 826	738 637	768 244
Gold	g	64 735	73 512	83 446	87 562	104 655
Indium	"	..	..	..	..	..
Iron ore	t	33 198	32 959	39 930	39 502	36 096
Iron, remelt	"	..	..	..	..	..
Lead	kg	272 187	271 961	264 301	268 292	303 503
Magnesium	"	..	..	..	..	..
Molybdenum	"	13 961	10 194	11 577	7 852	12 914
Nickel	"	88 581	125 022	173 725	169 971	180 589
Platinum group	g	7 105	6 965	10 369	10 534	8 793
Selenium	kg	222	266	463	361	334
Silver	"	1 314	1 197	1 327	1 197	1 219
Tantalum (Ta <sub>2</sub> O <sub>5</sub> )	"	59	—	—	39	39
Tellurium	"	18	16	19	19	16
Tin	"	135	140	209	120	—
Tungsten (WO <sub>3</sub> )	"	3 030	1 126	4 196	4 031	1 786
Uranium (U <sub>3</sub> O <sub>8</sub> )	"	7 643	6 823	10 272	10 441	10 977
Zinc	"	965 607	987 713	1 062 701	1 049 275	1 055 103
Non-metallics						
Asbestos	t	834	858	837	750	640
Barite	"	..	45	64	71	37
Diatomite	"	..	..	..	..	..
Gemstones	kg	..	..	184	..	..
Gypsum	t	5 987	7 507	7 775	8 447	8 542
Magnesian dolomite and brucite	"	..	..	..	..	..
Nepheline syenite	t	550	523	521	136	144
Nitrogen	m <sup>3</sup>	..	..	..	467	485
Peat	"	..	..	..	..	..
Potash (K <sub>2</sub> O)	t	487	529	541	643	587
Pyrite, pyrrhotite	"	5 309	6 294	7 527	6 661	6 969
Quartz	"	20	—	—	—	—
Salt	"	1 703	2 303	2 659	2 669	2 437
Soapstone, talc, pyrophyllite	"	7 940	8 602	10 235	10 085	11 088
Sodium sulphate	"	71	97	123	127	125
Sulphur, in smelter gas	"	547	454	389	366	371
Sulphur, elemental	"	627	678	844	822	760
Titanium dioxide	"	6 945	6 631	8 353	8 102	6 868
	"	..	..	..	..	..
Structural materials						
Clay products	"	..	..	..	..	..
Cement	t	8 426	7 871	9 240	10 192	10 058
Lime	"	2 197	2 232	2 249	2 212	2 364
Sand and gravel	"	216 274	233 408	233 759	256 183	242 548
Stone	"	59 181	67 651	81 754	86 632	91 200
Value (\$'000)						
		1982	1983	1984	1985	1986 <sup>P</sup>
Metallics						
Antimony		2,455	2,093	3,163	6,476	23,910
Bismuth		1,057	1,267	1,964	3,943	2,425
Cadmium		2,684	3,657	7,754	6,245	5,434
Calcium		—	—	—	—	—
Cobalt		38,741	23,563	61,127	71,960	56,242
Columbium (Cb <sub>2</sub> O <sub>3</sub> )		20,832	12,133	18,778	..	..
Copper		1,195,083	1,364,397	1,365,695	1,466,932	1,567,988
Gold		968,012	1,230,886	1,252,283	1,219,653	1,715,392
Indium		..	..	..	..	..
Iron ore		1,201,256	1,269,924	1,482,352	1,462,254	1,254,758
Iron, remelt		103,614	108,549	134,827	..	..
Lead		197,335	160,512	195,292	154,845	204,427
Magnesium		..	..	..	..	..
Molybdenum		159,142	87,710	106,158	74,359	113,942
Nickel		600,936	781,458	1,166,140	1,217,388	1,075,467
Platinum group		82,253	..	..	..	..
Selenium		2,294	2,687	11,893	7,869	5,742
Silver		415,204	544,723	461,868	333,839	310,102
Tantalum (Ta <sub>2</sub> O <sub>5</sub> )		7,243	—	—	3,045	2,124
Tellurium		577	521	511	645	547
Tin		1,915	2,013	3,761	1,893	..
Tungsten (WO <sub>3</sub> )		..	..	..	..	..
Uranium (U <sub>3</sub> O <sub>8</sub> )		837,468	667,672	901,573	1,002,127	923,838
Zinc		1,036,096	1,135,179	1,495,233	1,315,791	1,304,107

**10.4 Quantity and value of mineral production<sup>1</sup> (concluded)**

Mineral	Value (\$'000)				
	1982	1983	1984	1985	1986 <sup>p</sup>
<b>Non-metallics</b>					
Asbestos	364,795	391,294	379,275	298,596	300,586
Barite	2,966	4,878	6,974	5,503	4,635
Diatomite	..	..	..	..	..
Gemstones	405	641	1,118	823	2,114
Gypsum	46,608	59,297	61,562	75,076	80,613
Magnetite dolomite and brucite	8,216	7,825	8,145	20,266	19,165
Nepheline syenite	17,324	18,131	17,866	17,898	20,413
Nitrogen	..	..	..	..	..
Peat	49,738	47,810	51,816	63,772	74,502
Potash (K <sub>2</sub> O)	630,562	645,767	867,540	629,546	579,022
Pyrite, pyrrhotite	220	—	—	—	—
Quartz	31,864	38,467	40,845	42,536	42,834
Salt	156,620	172,787	210,191	215,362	241,611
Soapstone, talc, pyrophyllite	5,066	7,996	11,154	13,352	15,746
Sodium sulphate	47,462	42,636	37,702	33,871	33,413
Sulphur, in smelter gas	42,027	42,322	63,200	86,342	66,983
Sulphur, elemental	569,928	427,358	609,141	1,026,202	927,083
Titanium dioxide	..	..	..	..	..
<b>Structural materials</b>					
Clay products	95,993	132,330	136,795	138,246	180,353
Cement	673,653	606,101	717,282	788,357	790,846
Lime	142,081	156,677	157,645	182,377	206,400
Sand and gravel	554,608	619,400	546,328	609,638	596,603
Stone	263,249	319,465	393,433	406,601	426,306
Other minerals	215,536	244,772	401,405	609,490	674,295
<b>Total</b>	<b>10,793,118</b>	<b>11,384,898</b>	<b>13,389,789</b>	<b>13,613,118</b>	<b>13,849,968</b>

<sup>1</sup> Excludes fuels.**10.5 Producers' shipments of copper (tonnes), by province, and total value**

Province or territory and value	1971	1982	1983	1984	1985	1986 <sup>p</sup>
Newfoundland	12 682	3 731	—	1 146	—	—
Nova Scotia	15	—	—	—	—	—
New Brunswick	9 313	13 125	11 369	7 800	6 774	7 069
Quebec	167 669	94 977	63 741	67 618	73 531	67 045
Ontario	274 306	158 220	219 803	292 220	284 692	289 297
Manitoba	50 135	48 810	67 164	67 537	69 071	69 274
Saskatchewan	10 111	4 898	6 203	4 798	4 976	3 455
British Columbia	127 287	280 969	282 754	280 638	299 560	332 084
Yukon	2 328	7 510	1 904	—	10	20
Northwest Territories	625	215	102	69	23	—
<b>Total</b>	<b>654 471</b>	<b>612 455</b>	<b>653 040</b>	<b>721 826</b>	<b>738 637</b>	<b>768 244</b>
<b>Value</b>	<b>\$'000</b>					
	760,016	1,195,083	1,364,397	1,365,695	1,466,932	1,567,988

**10.6 Producers' shipments of nickel (tonnes), by province, and total value**

Province or territory and value	1971	1982	1983	1984	1985	1986 <sup>p</sup>
Quebec	679	—	—	—	—	—
Ontario	195 729	62 564	88 451	133 048	131 035	137 004
Manitoba	69 461	26 017	36 571	40 677	38 936	43 595
British Columbia	1 154	—	—	—	—	—
<b>Total</b>	<b>267 023</b>	<b>88 581</b>	<b>125 022</b>	<b>173 725</b>	<b>169 971</b>	<b>180 599</b>
<b>Value</b>	<b>\$'000</b>					
	800,064	600,936	781,458	1,166,140	1,217,388	1,075,467

### 10.7 Iron ore shipments and production of pig iron and steel ingots and castings

Year	Iron ore shipments					Production of pig iron '000 t	Production of steel ingots and castings '000 t
	Newfoundland (incl. Labrador) '000 t	Quebec '000 t	Ontario '000 t	British Columbia '000 t	Total Quantity '000 t	Value \$'000	
1971	19 846	11 219	10 141	1 751	42 957	55,136	11 047
1982	15 806	12 984	3 633	775	33 198	1,201,256	11 871
1983	18 405	10 247	3 810	497	32 959	1,269,924	12 832
1984	21 184	14 020	4 555	171	39 930	1,482,352	14 699
1985	20 192	14 875	4 347	88	39 502	1,462,254	13 452
1986 <sup>P</sup>	19 465	13 200	3 367	64	36 096	1,254,758	..

### 10.8 Producers' shipments of lead (tonnes) from Canadian ores, by province, and total value

Province or territory and value	1971	1982	1983	1984	1985	1986 <sup>P</sup>
Newfoundland	12 230	1 180	—	4 845	—	—
Nova Scotia	376	—	—	—	—	—
New Brunswick	59 334	81 475	70 346	71 732	68 375	76 391
Quebec	587	—	—	—	—	—
Ontario	8 088	5 697	6 473	9 478	3 812	6 542
Manitoba	182	730	519	817	741	496
British Columbia	112 458	83 657	112 942	85 148	116 811	103 204
Yukon	98 582	35 493	520	2 083	1 470	36 279
Northwest Territories	76 035	63 955	81 161	90 198	77 083	80 591
Total	367 872	272 187	271 961	264 301	268 292	303 503
Value \$'000	109,488	197,335	160,512	195,292	154,845	204,427

### 10.9 Producers' shipments of zinc (tonnes), by province, and total value

Province or territory and value	1971	1982	1983	1984	1985	1986 <sup>P</sup>
Newfoundland	18 899	28 139	35 358	42 620	32 730	6 686
New Brunswick	146 523	230 299	225 054	232 792	197 503	166 107
Quebec	158 230	67 002	53 688	58 249	75 812	42 000
Ontario	331 780	260 544	288 528	303 425	280 475	303 549
Manitoba	22 667	31 435	49 007	48 854	64 688	57 742
Saskatchewan	7 844	4 945	5 879	6 160	5 663	3 213
British Columbia	138 551	75 183	95 289	95 508	108 072	137 687
Yukon	105 748	54 537	27	173	109	54 562
Northwest Territories	203 497	213 523	234 883	274 920	284 223	283 557
Total	1 133 739	965 607	987 713	1 062 701	1 049 275	1 055 103
Value \$'000	418,161	1,036,096	1,135,179	1,495,233	1,315,791	1,304,107

### 10.10 Producers' shipments of gold (kilograms), by province, and total value

Province or territory and value	1971	1982	1983	1984	1985	1986 <sup>P</sup>
Newfoundland	228	141	—	34	—	—
New Brunswick	132	205	346	781	283	107
Quebec	20 119	25 831	27 349	28 632	30 104	29 464
Ontario	35 271	20 068	23 761	28 292	32 262	46 720
Manitoba	935	1 729	2 194	2 154	2 162	2 187
Saskatchewan	807	271	135	188	225	15
Alberta	2	11	15	16	28	25
British Columbia	2 781	7 710	8 072	7 656	6 720	8 737
Yukon	450	2 656	3 006	2 960	3 065	4 020
Northwest Territories	9 590	6 113	8 634	12 732	12 713	13 380
Total	70 315	64 735	73 512	83 446	87 562	104 655
Value \$'000	79,903	968,012	1,230,886	1,252,283	1,219,653	1,715,392

**10.11 Producers' shipments of silver (kilograms), by province and total value**

Province or territory and value	1971	1982	1983	1984	1985	1986 <sup>P</sup>
Newfoundland	17 530	3 000	—	7 000	—	—
Nova Scotia	1 720	—	—	—	—	—
New Brunswick	157 310	230 000	198 000	217 000	175 000	201 000
Quebec	136 171	55 000	46 000	47 000	61 000	50 000
Ontario	581 064	351 000	419 000	541 000	456 000	437 000
Manitoba	21 595	25 000	33 000	36 000	40 000	34 000
Saskatchewan	7 426	5 000	5 000	5 000	6 000	3 000
British Columbia	238 694	499 000	407 000	361 000	379 000	405 000
Yukon	178 774	95 000	15 000	54 000	47 000	66 000
Northwest Territories	91 209	51 000	74 000	59 000	33 000	23 000
Total	1 431 493	1 314 000	1 197 000	1 327 000	1 197 000	1 219 000
Average price per kilogram (Canadian funds) \$	50.16	315.98	455.07	348.05	278.90	254.39
Value \$'000	71,797	415,204	544,723	461,868	333,839	310,102

**10.12 Quantity and value of producers' shipments of uranium (U<sub>3</sub>O<sub>8</sub>), by province**

Year	Ontario		Saskatchewan		Total	
	Quantity t	Value \$'000	Quantity t	Value \$'000	Quantity t	Value \$'000
1971	3 180	..	546	..	3 726	..
1976	4 441	186,439	1 972	55,390	6 413	241,829
1981	4 859	525,806	2 648	268,406	7 507	794,212
1982	5 092	589,057	2 551	248,411	7 643	837,468
1983	4 767	546,306	2 056	121,366	6 823	667,672
1984	4 552	544,779	5 720	356,794	10 272	901,573
1985	4 499	552,561	5 942	449,566	10 441	1,002,127
1986 <sup>P</sup>	4 445	476,462	6 532	447,376	10 977	923,838

**10.13 Quantity and value of producers' shipments of asbestos**

Year	Quantity '000 t	Value \$'000
1971	1 483	203,999
1981	1 122	548,406
1982	834	364,795
1983	858	391,294
1984	837	379,275
1985	750	298,596
1986 <sup>P</sup>	640	300,586

**10.14 Producers' shipments of potash**

Year	Quantity (K <sub>2</sub> O eq.) '000 t	Value \$'000
1971	3 629	134,95
1981	6 549	990,41
1982	5 309	630,56
1983	6 294	645,76
1984	7 527	867,54
1985	6 661	629,54
1986 <sup>P</sup>	6 969	579,02



**10.15 Producers' shipments of salt (thousand tonnes), by province and total value**

Province and value	1971	1982	1983	1984	1985	1986 <sup>P</sup>
Nova Scotia	806	—	—	—	—	—
Ontario	3 785	5 461	5 480	6 412	5 829	6 708
Manitoba	24	—	—	—	—	—
Saskatchewan	190	434	358	402	437	442
Alberta	222	863	916	1 264	1 404	1 391
Quebec	..	..	..	..	..	..
Total	5 027	7 940	8 602	10 235	10 085	11 088
Value \$'000	40,111	156,620	172,787	210,191	215,362	241,611

**10.16 Quantity and value of sulphur produced and sold**

Item	Quantity ('000 t)					
	1971	1982	1983	1984	1985	1986 <sup>P</sup>
Sulphur in smelter gases <sup>1</sup>	561	627	678	844	822	760
Producers' shipments of pyrite and pyrrhotite	—	—	—	—	—	—
Gross weight <sup>2</sup>	288	20	—	—	—	—
Sulphur content	141	9	—	—	—	—
Sales of elemental sulphur <sup>3</sup>	2 857	6 945	6 631	8 353	8 102	6 868
Value (\$'000)						
	1971	1982	1983	1984	1985	1986 <sup>P</sup>
Sulphur in smelter gases <sup>1</sup>	4,632	42,027	42,322	63,200	86,342	66,983
Producers' shipments of pyrite and pyrrhotite	1,162	220	—	—	—	—
Sales of elemental sulphur <sup>3</sup>	21,300	569,928	427,358	609,141	1,026,202	927,083

<sup>1</sup> Includes sulphur in acid made from roasting zinc sulphide concentrates at Arvida and Port Maitland.

<sup>2</sup> Excludes pyrite and pyrrhotite used to produce iron residues or sinter.

<sup>3</sup> Recovered from sour natural gas and nickel sulphide ores.

**10.17 Producers' shipments of gypsum (thousand tonnes), by province and total value**

Province and value	1971	1982	1983	1984	1985	1986 <sup>P</sup>
Newfoundland	509	409	553	531	518	449
Nova Scotia	4 436	4 480	5 397	5 476	6 165	6 164
New Brunswick	70	—	—	—	—	—
Ontario	634	574	907	1 183	1 114	1 309
Manitoba	118	109	190	173	196	162
British Columbia	313	415	460	412	454	459
Total	6 080	5 987	7 507	7 775	8 447	8 542
Value \$'000	15,083	46,608	59,297	61,562	75,076	80,613

**10.18 Production and exports of nepheline syenite**

Year	Production		Exports	
	Quantity '000 t	Value \$'000	Quantity '000 t	Value \$'000
1971	469	6,206	—	—
1981	588	16,770	372	5,333
1982	550	17,324	476	15,258
1983	523	18,130	414	15,765
1984	521	17,866	398	16,310
1985	523	18,131	387	16,629
1986 <sup>P</sup>	521	17,866	351	16,300
			347	18,490

**10.19 Producers' shipments and value, imports, exports and apparent consumption of cement**

Year	Shipments (sold or used)		Imports '000 t	Exports <sup>1</sup> '000 t	Apparent consumption <sup>2</sup> '000 t
	Quantity '000 t	Value \$'000			
1971	8 234	183,374	51	806	7 479
1981	10 145	665,936	680	1 579	9 246
1982	8 426	673,653	232	1 752	6 906
1983	7 871	606,101	238	1 512	6 597
1984	9 240	717,282	236	2 113	7 363
1985	10 192	788,357	373	2 485	8 080
1986 <sup>p</sup>	10 058	790,846	445	2 448	8 055

<sup>1</sup> Standard portland cement.<sup>2</sup> Shipments plus imports less exports.**10.20 Producers' shipments of sand and gravel (thousand tonnes), by province, and total value**

Province or territory and value	1971	1982	1983	1984	1985	1986 <sup>p</sup>
Newfoundland	5 048	2 839	4 057	3 123	2 568	2 700
Prince Edward Island	1 410	1 136	1 174	271	588	475
Nova Scotia	5 447	5 309	8 136	8 180	8 829	8 325
New Brunswick	4 522	6 206	5 668	7 401	9 177	8 200
Quebec	37 743	41 932	37 006	35 189	32 520	26 023
Ontario	70 426	62 256	68 316	67 245	77 796	77 200
Manitoba	15 145	10 284	9 909	11 693	12 224	12 200
Saskatchewan	10 270	8 512	7 999	9 737	11 433	10 675
Alberta	16 945	46 092	43 789	45 494	49 287	48 400
British Columbia	26 538	24 618	40 969	35 103	43 774	41 900
Yukon	—	463	480	3 074	1 185	3 450
Northwest Territories	—	6 625	5 905	7 249	6 802	3 000
Total	193 494	216 274	233 408	233 759	256 183	242 548
Value \$'000	152,628	554,608	619,400	546,328	609,638	596,603

**10.21 Producers' shipments of stone<sup>1</sup> (thousand tonnes), by province, and total value**

Province or territory and value	1971	1982	1983	1984	1985	1986
Newfoundland	185	357	279	558	600	525
Nova Scotia	1 491	679	1 296	4 377	4 452	4 203
New Brunswick	1 298	2 261	2 087	2 035	2 394	2 030
Quebec	34 033	25 060	27 303	30 946	31 130	32 918
Ontario	25 618	23 582	27 939	33 992	37 180	41 883
Manitoba	918	2 345	1 137	2 120	4 155	3 464
Alberta	167	264	286	258	225	190
British Columbia	2 982	4 310	4 915	6 739	6 333	5 722
Northwest Territories	—	323	2 409	729	163	250
Total	66 692	59 181	67 651	81 754	86 632	91 201
Value \$'000	96,537	263,249	319,465	393,433	406,601	426,30

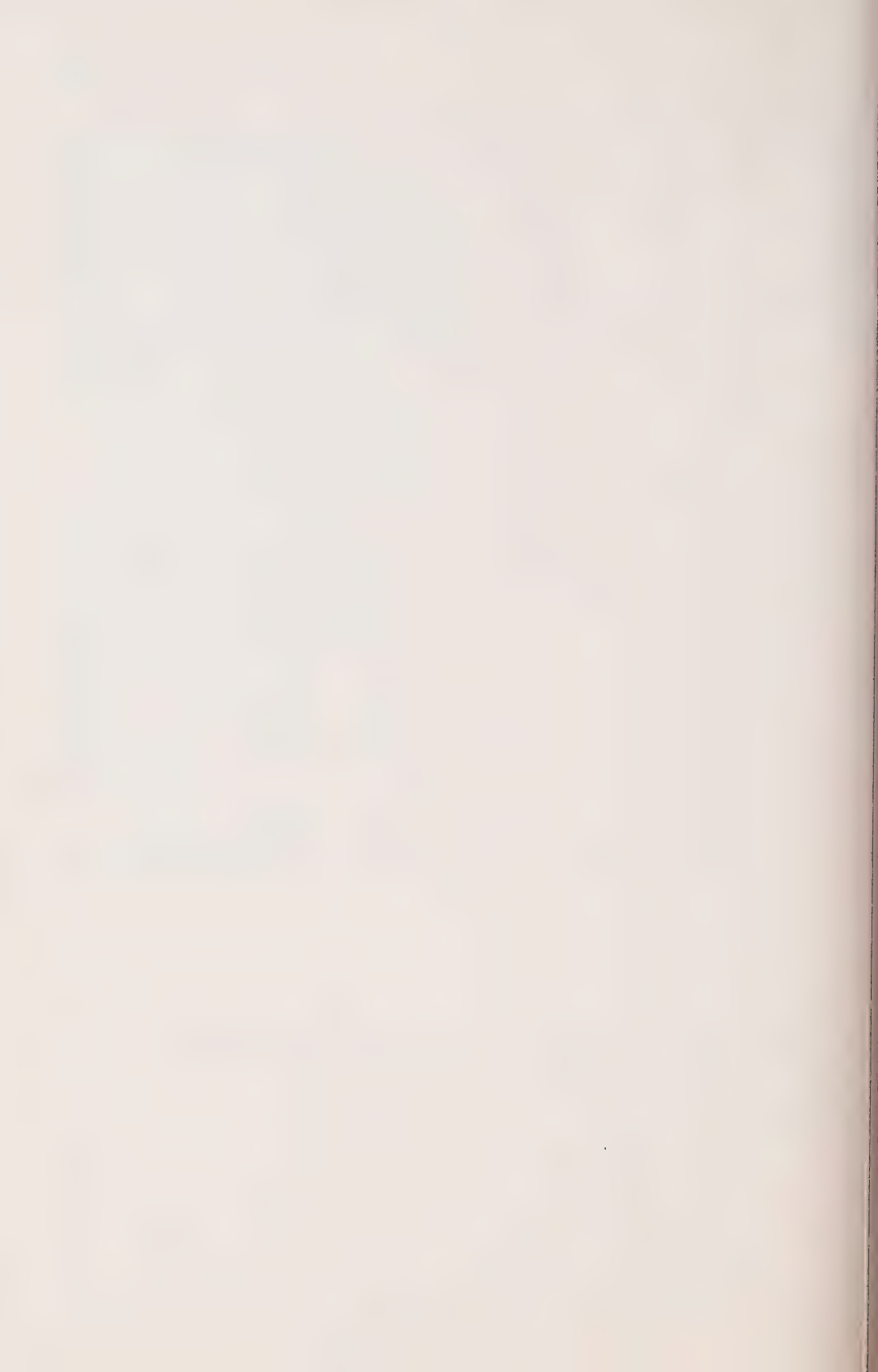
<sup>1</sup> Excludes limestone used in Canadian lime and cement industries.

**10.22 Value (total sales) of producers' shipments of clay products from domestic clays, by province (thousand dollars)**

Province	1971	1982	1983	1984	1985	1986 <sup>P</sup>
Newfoundland	80	860	1,381	1,546	1,342	1,480
Nova Scotia	1,844	4,500	5,900	6,430	7,069	7,730
New Brunswick	627	2,200	3,200	3,313	4,153	3,350
Quebec	6,565	14,047	20,667	20,945	19,131	31,783
Ontario	30,538	52,229	74,673	83,461	89,126	110,410
Manitoba	469	1,735	3,395	2,156	2,159	2,480
Saskatchewan	1,140	3,349	3,571	3,561	3,812	4,060
Alberta	4,031	11,220	12,207	8,153	7,828	10,160
British Columbia	4,900	5,853	7,336	7,230	3,624	8,900
Total	50,194	95,993	132,330	136,795	138,246	180,353

**Source**

10.1 - 10.22 Mineral Policy Sector, Department of Energy, Mines and Resources.





## CHAPTER 11

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# ENERGY

**CHAPTER 11****ENERGY**

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THEN



"The fuel situation in Canada is somewhat anomalous as, in spite of the enormous resources of coal in the country, about 50 p.c. of the consumption is imported. The Canadian coal areas are situated in the eastern and western provinces, while Ontario and Quebec are more easily and economically supplied with coal from the nearer coal fields of Pennsylvania and Ohio." (1937)

In 1925 the output of electric current in Canada was the third largest in the world, behind the United States and Germany. During the war, the development of the central electric power industry was greatly stimulated by the urgent need of power for the manufacture of war munitions. (1927-28)

**EAGLE FOUNDRY**



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24 TO 34 KING AND QUEEN STREETS, MONTREAL.

STEAM ENGINES, STEAM BOILERS, HOISTING MACHINES, STEAM  
PUMPS, ORB CRUSHERS, STAMP MILLS, WATER WHEELS.

Mill Gearing, Shafting, &c., Winches, Hoisting Machines for  
Warehouses, &c.—Bark Mills, Hydraulic Presses, Screw  
Presses, Castings and forgings of all kinds. Best Fire Bricks  
Fire Clay and Foundry Facings always on hand.

**AGENT FOR JUDSON'S PATENT GOVERNOR.**

NOW

Between 1937 and 1980, the production of crude oil and equipment in Canada has fluctuated from a low of 840 million cubic metres in 1983 to a high of 31.4 million cubic metres in 1985.

Between 1983 and 1985, the total number of wells drilled in Canada, including oil and gas, almost doubled to reach a record high of 12,170 completed wells.

Following a period of steadily growing output, coal production peaked at 60.0 megatonnes in 1985, dropping slightly to 57.0 megatonnes in 1986.

Canada overtook the United States as the world's leading supplier of low-cost reasonably assured uranium in 1984. Canada accounted for about 30 % of the world's production of uranium in 1985.



## CHAPTER 11 ENERGY

### 11.1 International scene

A large surplus of crude oil on international markets in late 1985 and during most of 1986 resulted in the world price of oil dropping below US\$10 per barrel (US\$63 per cubic metre) for a short time in the summer of 1986. In an effort to increase prices, member nations of the Organization of Petroleum Exporting Countries (OPEC) announced, on August 6, 1986, that all member countries (except Iraq) were returning to a production level of 14.8 million barrels per day (2.4 million cubic metres), as of September 1, for a two-month trial period. With Iraq's production, OPEC's combined output was estimated at 16.8 million barrels per day (2.8 million cubic metres). Satisfied with the effect that its provisional program had had on stabilizing oil prices at the US\$15 per barrel level (US\$94 per cubic metre), OPEC oil ministers announced, in December 1986, that the cartel, excluding Iraq, would cut production by 7.23% to 15.8 million barrels per day (2.5 million cubic metres), and that the cut would result in the raising of oil prices to an official level of US\$18 per barrel (US\$113 per cubic metre).

The International Energy Agency (IEA), of which Canada is one of 21 member nations, is an autonomous agency of the Organization for Economic Co-operation and Development. Its main purpose is to organize its members to deal with any oil crisis which would be considered a major economic threat. Therefore, intermittently, it runs oil-sharing system tests. The fifth test, AST 5, was carried out in 1985. In Canada, AST 5 involved the Energy Supplies Allocation Board, 23 oil companies and five producing provinces.

Canada is also an active participant in such bodies as the Organization for Economic Co-operation and Development (OECD), the North Atlantic Treaty Organization (NATO), the United Nations (UN) and the World Energy Conference (WEC). The WEC, a London-based organization established in 1924, is dedicated to the goal of promoting the development and

peaceful use of energy resources. The ninth Canadian National Energy Forum and World Energy Conference was held in Toronto in May 1986. Themes emerging from this conference included: uncertainty in demand for energy and in prices in the short and long term; the market as a preferred way to deal with uncertainty; and the constancy of energy objectives, despite dramatic changes in energy markets — especially a continuing preoccupation with security of supply. The Thirteenth Congress of the World Energy Conference was held in Cannes in October 1986 on the theme of Energy Needs/Expectations. The Fourteenth Congress will take place in Montreal in 1989, with a theme of Energy in the Future.

The Petro-Canada International Assistance Corp. (PCIAC) was established in 1980 to assist developing countries in reducing their dependence on imported oil. The corporation has since entered into oil and gas assistance projects with Barbados, Jamaica, Windward Islands, Haiti, Senegal, Ghana, Tanzania, Kenya, Burma, Thailand, Pakistan, the Philippines, Columbia, Costa Rica, Guinea, Gambia, Morocco and Sri Lanka. Over the past four years, 125 Canadian private sector firms have received PCIAC contracts totalling over \$65 million.

A list of countries from which Canada imports oil, by volume and by value, appears in Table 11.3.

### 11.2 Energy developments

Since 1984, energy policy has undergone significant changes with a new emphasis on decontrolled energy pricing, profit-based taxation of the industry, a stable, investment-oriented planning environment, and a clear, non-discriminatory, non-interventionist fiscal, regulatory and management regime. The announcements of the Economic and Fiscal Statement (November 8, 1984), the Atlantic Accord (February 11, 1985), the Western Accord (March 28, 1985), the federal budget (May 23, 1985), the Agreement on Natural Gas Markets and Prices (October 31, 1985),

Canada's Energy Frontiers (October 30, 1985) and the Nova Scotia Accord (August 26, 1986), clearly signal the government's commitment to the new policy direction. Overall government priorities of economic renewal, deficit reduction and job creation are being addressed in this new policy framework.

In accordance with the economic and fiscal statement delivered in the House of Commons on November 8, 1984, federal expenditures on energy demand and supply programs were reduced. The following initiatives were undertaken which, together with other adjustments, resulted in a federal savings of more than \$600 million during the 1985-86 fiscal year. Petroleum Incentives Program (PIP) expenditures were reduced by \$250 million. The Canada Oil Substitution Program (COSP) was terminated one year early, on March 31, 1985, effecting a savings of \$95 million. The early termination of the Canadian Home Insulation Program (CHIP) on March 31, 1986 resulted in an \$84 million savings. The deferment of new commitments under the Natural Gas Laterals Program (NGLP) provided an \$85 million savings. The cancellation of the Maritimes Engineering Program (MEP) of engineering work on the Maritimes section of the TransQuebec and Maritimes gas pipeline resulted in savings of \$8 million. The winding up of Canertech, a subsidiary of Petro-Canada which invested in conservation and renewable energy projects, saved the government \$30.6 million. The reduction of the level of expenditures of the interdepartmental energy research and development program translated into a savings of \$60.8 million.

The Atlantic Accord between the government of Canada and the government of Newfoundland and Labrador, provided a joint management and revenue-sharing regime that allows Newfoundland to establish and collect royalties and provincial-type revenues and taxes for its offshore petroleum resources as if these were on land. It established the Canada-Newfoundland Offshore Petroleum Board and a \$300 million development fund, and provided for constitutional entrenchment of the Accord.

The Western Accord is a comprehensive oil and gas agreement between the government of Canada and the governments of Alberta, Saskatchewan and British Columbia. This agreement deregulated Canadian crude oil pricing and marketing, took steps to move the natural gas industry toward a system of market-oriented pricing, and eliminated or phased out some federal oil and gas taxes or charges, including

the Petroleum and Gas Revenue Tax, the Petroleum Compensation Charge and the Canadian Ownership Special Charge.

The Frontier Policy Statement announced the end of the Crown ownership share and the introduction of a clear and fair set of rules governing frontier oil and gas activity. The tenets of this policy were embodied in the Canada Petroleum Resources Act, which received Royal Assent on November 18, 1986.

The agreement on Natural Gas Markets and Prices established transitional provisions for moving toward domestic gas deregulation on November 1, 1986. The Nova Scotia Accord is a long-term agreement on joint management of oil and gas exploration, development and production in the offshore of Nova Scotia. It established a new independent Canada-Nova Scotia Offshore Oil and Gas Board to administer and regulate all aspects of offshore oil and gas activities. It also converted the previously established \$200 million development fund from a loan to a grant. In addition, a \$25 million grant will be made available by the government of Canada to Nova Scotia Resources Limited to participate in exploration and development activity offshore Nova Scotia.

#### 11.2.1 Pricing and fiscal incentives

The collapse of the world oil price after November 1985 put an abrupt end to the expansion in oil and gas industry activity following the Accords. In the space of a few months, the boom became a crisis. Such a dramatic change in the underlying economics of the industry required both a change in expectations and a change in policy. Most importantly, governments have had to become more realistic about the royalties and the taxes they can expect the industry to generate. The federal government has led the way by progressively reducing and finally eliminating the single remaining special tax it levied on the industry — the Petroleum and Gas Revenue Tax (PGRT).

On April 30, 1986, an announcement was made for measures to relieve small producers and high-cost oil sands producers from the Petroleum and Gas Revenue Tax (PGRT). This was worth almost \$300 million to the industry.

On September 8, 1986, the Minister of Energy announced the accelerated phase-out of the PGRT, effective October 1. This would put over \$800 million back into the oil and gas industry in the subsequent two-and-a-half-year period — providing much-needed cashflow for energy investment opportunities and saving thousands of existing oil- and gas-related jobs.

Aside from the tax relief, the federal government has provided some project-specific assistance. Cabinet agreed in principle, on October 8th, 1985, to provide loan guarantees to the Newgrade upgrader at the consumers cooperative refinery in Regina, Sask. At the end of 1986 detailed negotiations were continuing.

On April 8, 1986, the federal government agreed, jointly with Alberta and Saskatchewan, to help finance pre-construction engineering for the Husky upgrader at a total cost of some \$90 million.

### 11.2.2 Energy security programs

The objective of the Distribution Systems Expansion Program (DSEP) was to assist the extension of natural gas distribution systems to areas where gas service was not available. The funding source of DSEP east of Alberta was the Market Development Incentive Payments (MDIP). As a result of the Western Accord of March 1985, the MDIP fund was capped at \$160 million, which was expected to be reached by the termination date of April 30, 1986. This amount will be sufficient to cover outstanding commitments made in 1984-85 under all MDIP supported programs, including the DSEP, but will not permit any new commitments to be made. Therefore, the program has been essentially terminated. Over the life of the DSEP, approximately 100,000 new customers have been added to the natural gas distribution system and, as a result, over one million cubic metres of oil will be displaced annually.

Three hundred and fifty super energy-efficient housing units have been built under the Super Energy-Efficient Housing Demonstration (SEED) Program by the Canadian house-building industry. Energy consumption for space heating will be about 25% of that in conventional homes. There is strong industry support, and the technology being developed is affecting Canadian housing construction practices positively.

In February 1983, the federal government announced two natural gas contribution programs in the transportation field. The Natural Gas Fuelling Station Contribution Program (NGFSCP) was designed to encourage the development of a vehicle refuelling station network for natural gas. It provided a taxable contribution of up to \$50,000, extended to some 125 fuelling station operators by March 1987. The Natural Gas Vehicle Program (NGVP) was established to encourage the use of natural gas vehicles by offsetting the costs of vehicle conversions. It offers taxable contributions to both

commercial users and private consumers of up to \$500 toward the estimated \$1,800 cost of converting a vehicle for natural gas use. A target of 35,000 vehicles powered by compressed natural gas by March 1987 was set for this program.

The objective of the Solar Demonstration Program is to have cost-effective applications of active solar energy in Canada by 1988. The total approved budget is \$25 million, through to March 1988, plus \$20 million for R&D. To date, 150 demonstrations include about 5,000 solar domestic hot water systems, 92 commercial/industrial projects and 20 special projects.

The Remote Community Demonstration Program (RCDP) provides financial support to remote communities to identify and adopt alternative-to-oil energy supply and energy conservation methods in order to reduce the use of, and dependence on, high-cost oil products. To date, 84 studies have been funded.

By September 1985, the Canadian Home Insulation Program (CHIP) had provided more than 3 million Canadian households with contributions of up to \$500. Approximately 80% of Canadian residences were eligible for these contributions. Expenditures to September 1985 totalled more than \$960 million. The CHIP contribution rate was reduced from 60% to 33 1/3% effective January 1985, and the program itself terminated March 31, 1986.

The Industrial and Commercial Energy Conservation Programs are intended to encourage greater efficiency and lower costs in the use of energy by industry, commerce and agriculture, which account for 35% of national energy use.

The voluntary industrial energy conservation task forces represent the core of these programs. Currently, approximately 750 companies, using 80% of industrial energy within their manufacturing facilities, are involved through a network of 16 industry task forces which promote energy conservation through studies of conservation opportunities workshops, seminars and newsletters.

Energy conservation task forces have also been formed in non-manufacturing sectors, including the hospitality industry, office buildings, agriculture, post-secondary education and, most recently, distribution trades.

Other governmental support measures include the Class 34 — Tax Incentive which provides a fast write-off (three years) for a range of energy conservation and renewables energy equipment and the Industrial Energy Research and Development Program which supports research, development and application for energy conservation techniques in the industrial sector.



The 1982 report of the Canadian Industry Program for Energy Conservation (CIPEC) indicated an overall improvement in energy efficiency (intensity of energy use) of 15.4%, surpassing the 1980 target of 12%.

The Forest Industry Renewable Energy Program provides capital assistance in support of energy production from biomass (wood waste, garbage, etc.). To date, 176 projects with a total federal contribution of \$85 million have been approved. When completed, these projects will have the capacity to displace 1.3 million cubic metres of oil equivalent per annum. Over one-half of the displaced fuel is oil, one-third natural gas and the rest liquefied petroleum gas (LPG), electricity and coal.

Approved in early 1984, Enerdemo-Canada is a federally delivered program to demonstrate energy conservation, oil substitution and alternative energy to enhance their market acceptance. It replaced the former Conservation and Renewable Energy Demonstration Agreements under which some 309 projects, ranging from energy management computer systems in schools to a railway electrification project in British Columbia, were completed in co-operation with provincial governments. In 1986-87, approximately \$20 million will be spent on demonstration and technology transfer activities in the range of end-use sectors, including housing, industry and transportation and on alternative energy sources such as biomass, wind and alcohol fuels.

Three conservation programs were terminated in 1985-86: the Canada Energy Audit Program (CEAP), which assisted industrial and commercial establishments in identifying energy waste and in implementing corrective measures; the Atlantic Energy Conservation Investment Program (AECIP), which provided contributions to energy conservation initiatives in the Atlantic region; and the Industrial Conversion Assistance Program (ICAP), which provided contributions for conversion from heavy fuel oil to pipeline natural gas. The termination of these programs, which required \$30.3 million in 1985-86, will be offset, in part, by less expensive technology transfer and informational initiatives to demonstrate the profitability of specific energy conservation measures to commercial and industrial establishments.

As the government moves away from direct funding of specific conservation and renewable energy programs, it has put into place National Conservation and Alternative Energy Initiatives (NCAEI). This is a three-year, \$306 million program to provide support for consumer aware-

ness, technology transfer, research, development and demonstration projects. NCAEI Memoranda of Agreements had been signed with the majority of provinces by the end of 1986.

### 11.2.3 Legislation

In March 1986, Bill C-85, an act to amend the Petroleum Incentives Program Act received Royal Assent. It provides the legislative framework for the orderly phasing-out of the Petroleum Incentives Program (PIP). The winding down of PIP is one of the elements of the federal government's new Frontier Energy Policy, announced December 20, 1985.

In November 1986, Bill C-5, the Canada Petroleum Resources Act (CPRA) received Royal Assent. This act gives legal force to the Frontier Energy Policy and is the basis for a co-ordinated approach between the government of Canada and the provincial and territorial governments to the management of oil and gas resources in Canada's frontier lands. The CPRA will not be in force in the Newfoundland and Nova Scotia offshore areas; these areas will be governed by separate, but similar, legislation implementing the Atlantic and Nova Scotia accords.

In December 1986, Bill C-17, an act to amend the Petroleum and Gas Revenue Tax (PGRT) and the Income Tax Act, and repeal the Petroleum and Gas Revenue Tax Act, received Royal Assent. The total cost of the provisions of the bill will be \$700 million from the early phase-out of the PGRT, plus \$175 million from the increased small producer credit.

## 11.3 Energy supply and demand

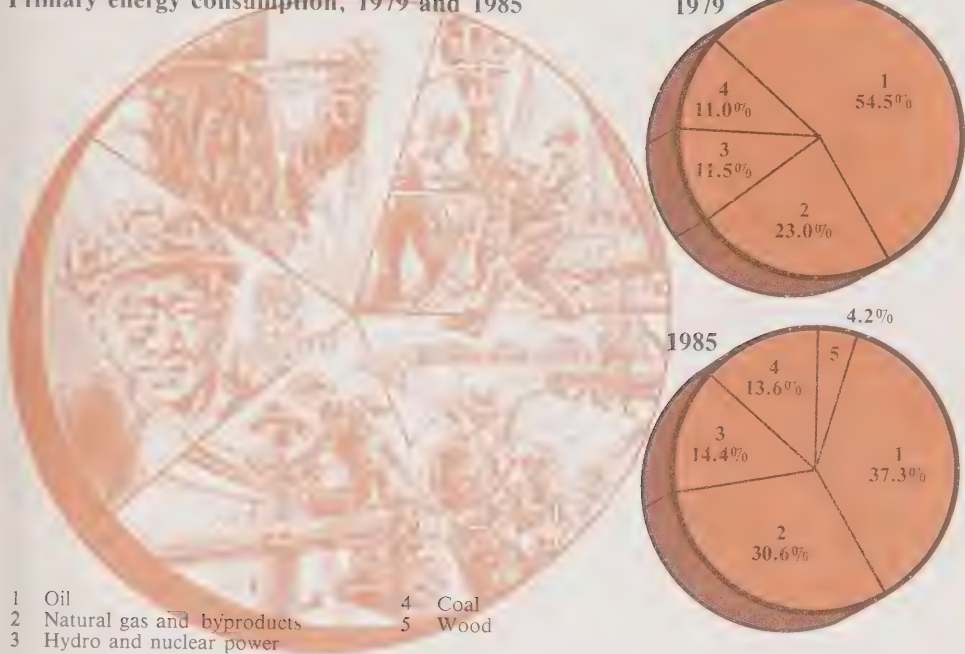
Canadian primary energy needs are met by oil, natural gas, coal, uranium, hydro-electricity and wood. Over the last few years, wood has accounted for about 4% of the primary energy consumed in Canada. In 1985, the consumption of primary energy in Canada was 37.3% from oil, 30.6% from natural gas and by-products, 14.4% from hydro and nuclear, 13.6% from coal and 4.2% from wood.

Canada's trade surplus in energy products in 1985, the last year for which complete figures are available, was \$10.7 billion, an increase of 47% over the value in 1983, and almost four times as great as the value in 1979.

In 1985, the final demand for all forms of energy products was accounted for as follows: refined petroleum products accounted for 40.6%, natural gas and liquefied petroleum gases for 31.5%, electricity and steam for 20.4%, biomass for 3.9% and coal and coal products for



Chart 11.1

**Primary energy consumption, 1979 and 1985**

3.7%. For 1978, the corresponding values were 52.4%, 24.5%, 15.6%, 3.8% and 3.7%. In the early years of this period, world oil prices were still rising and measures to conserve energy were not as extensive as they are today.

## 11.4 Oil and natural gas

### 11.4.1 Production and consumption

**Crude oil and equivalent.** Over the last four years, the production of crude oil and equivalent in Canada has fluctuated from a low of 84.0 million cubic metres in 1983 to a high of 91.4 million cubic metres in 1985; these figures represent the aggregate which includes conventional light and medium crude, heavy crude, synthetic crude, pentanes and condensate. The production of synthetic crude oil from Canada's two oil sands plants rose from 7.7 million cubic metres in 1984 to 10.7 million cubic metres in 1986.

Demand in Canada for crude oil and equivalent has continued to fall during the last four years, from a level of 82.3 million cubic metres in 1983 to 78.4 million cubic metres in 1986. During this period the export of Canadian

crude has risen from 16.6 million cubic metres in 1983 to 34.0 million cubic metres in 1986.

The fall in world oil prices from US\$180 per cubic metre in 1983 to US\$94 per cubic metre in 1986 has resulted, due to the increased competition from imported crude oil, in lower wellhead prices in Canada and a depressed exploration and development activity.

**Natural gas.** The supply of marketable natural gas in Canada has increased from 65.1 billion cubic metres in 1983 to 71.9 billion cubic metres in 1986. Exports increased substantially in 1985, then fell again in 1986 to near their former level, from 20.2 billion cubic metres in 1983 to 26.2 billion in 1985 and then back to 21.1 billion in 1986. Canadian consumption increased from 45.6 billion cubic metres in 1983 to 52.6 billion in 1985, then fell to 50.1 billion in 1986.

Following the trend in oil pricing, natural gas has been greatly affected by market shocks: in 1983 natural gas was \$3.84/GJ (gigajoule) at the Toronto city-gate, while in 1984 the average price was \$2.099/GJ. The value of export natural gas has also fallen over the last few years from \$195 per 1 000 cubic metres in 1983 to \$122 in 1985.

#### 11.4.2 Exploration and development

Between 1983 and 1985, the total number of wells drilled almost doubled, to reach a record high of 12,170 completed wells for the year. In 1986, a severely depressed industry completed only 5,493 wells, with all areas of Canada having substantially lower drilling activity than during the previous year.

During 1986, 49 wells were drilled in Northern Canada, with 16 oil discoveries and four natural gas; another 16 wells were drilled off the Eastern Coast of Canada with four oil discoveries and another five gas. By far, the largest number of wells were drilled in Alberta, 3,982 wells, with about 48% oil discoveries and another 24% natural gas. Saskatchewan had 1,059 wells drilled, with around 84% either oil or natural gas.

Over the last four years additional oil and natural gas discoveries have been made in various areas of Western Canada, adding to known reserves of oil and gas. In Ontario, oil continues to be produced from old pools which were first worked more than 70 years ago. The province's production of natural gas comes from an area near or under Lake Erie.

#### 11.4.3 Reserves

The Canadian Petroleum Association (CPA) estimated that at the commencement of 1986, total remaining reserves of crude oil and pentanes stood at 1 068 million cubic metres, a slight improvement over 1985. Natural gas reserves were estimated at 2.8 trillion cubic metres. The CPA also estimated that 196 million cubic metres of liquefied petroleum gases were available from reserves.

### 11.5 Oil refining

The Canadian refining industry continues to experience difficulty due to declining domestic demand for petroleum products, resulting in surplus in refining capacity. This decline in demand led to the closing of eight smaller and less efficient refineries in 1983, one in Atlantic Canada, three in Quebec, one in Ontario, two in the Prairies, and one in British Columbia. In addition to those closures, Texaco closed a refinery in Alberta during 1984 and the refinery of Gulf in Montreal was closed in 1986.

In 1984, 82.4 million cubic metres of crude oil and equivalent were processed in Canadian refineries; this declined by 1986 to 79.4 million cubic metres. Most of this decline in production was accounted for by a decline in the production of heavy fuel oil. Imports by Eastern Canadian refineries of crude oil and equivalent during

the period have increased from 14.4 million cubic metres in 1983 to 20.6 million cubic metres in 1986.

### 11.6 Transportation

During 1983, Interprovincial Pipeline (NW) Ltd started construction of a small diameter 866 km pipeline from Norman Wells Pipeline, in the central part of the Northwest Territories, to Zama in northern Alberta. This pipeline started to bring crude oil from Norman Wells to the refineries in Southern Canada in the middle of 1985. The TransQuebec and Maritimes Pipelines Inc. construction has been completed in most of the province of Quebec, bringing western natural gas to the Quebec City area and the Saguenay Lac Saint-Jean area. Construction of the sectors linking the existing pipelines in Quebec to markets in the Maritime provinces has been indefinitely delayed.

### 11.7 Coal

Since 1981, Canada has maintained its position as a net exporter of coal with the trade surplus of coal in 1983 valued at \$394 million, rising to \$1,110 million in 1985. Following a period of steadily growing output, coal production peaked at 60.9 megatonnes (million tonnes) in 1983, dropping slightly to 57.0 megatonnes in 1986. The coal-producing provinces of Nova Scotia, New Brunswick, Saskatchewan, Alberta and British Columbia produced 2.7, 0.5, 8.3, 25.2 and 20.4 megatonnes of coal, respectively, during 1986. Imports of coal have averaged slightly more than 15.3 megatonnes a year during the 1982 to 1986 period. Exports, which had grown steadily during the late 1970s and early 1980s, have leveled off and during the last three years (1984 to 1986) have averaged 26.1 megatonnes.

Metallurgical coal trade has continued to dominate type of coal sold in world markets, but for Canada and many other nations, exports have been declining as important customers, like Japanese steelmakers, have been cutting back due to the world economic slowdown and pressure from more efficient competitors. Canadian thermal coal consumption has been declining, as a result of Ontario Hydro's increasing number of nuclear generating stations coming on stream. However, other provinces, such as Alberta, have increased their reliance on coal-fired generation which has helped to offset some of the decline brought about by the decreased use by Ontario.

## 11.8 Uranium

Production of uranium has increased steadily each year, with the exception of 1985, from 8 075 tonnes of uranium (tU) in 1982 to 11 720 tU in 1986. Shipments of primary uranium in 1986 were estimated at 10 977 tU and valued at \$924 million, as compared with 7 035 tU (\$723 million) in 1983.

Canada has five primary uranium producers — Denison Mines Ltd., Rio Algom Ltd., Eldorado Resources Ltd., Cluff Mining and Key Lake Mining Co. These companies operate four mining sites in Ontario and another four sites in Saskatchewan.

Levels of Canadian uranium exploration activity have declined sharply since 1982 in response to the continued erosion of both the spot-market price and short-term sales prospects for uranium. This decline is due to various factors, such as growing world inventories, higher production costs and a general economic slowdown producing an unsettled market and causing delays in planned nuclear programs. It should be further expected that the Chernobyl disaster will cause downward adjustments to nuclear and uranium requirements, at least in the short run.

According to the Nuclear Energy Agency of the Organization for Economic Co-operation and Development and the International Atomic Energy Agency, Canada overtook the United States as the world's leading supplier of low-cost reasonably assured uranium in 1984. Canada accounted for approximately 30% of the world's production of uranium in 1985.

Canada felt the pressure of US industry protectionism in 1986, through two principal US efforts: a decision by the US District Court in Denver, which if upheld would oblige US utilities to ship their foreign-sourced uranium to Europe for enrichment, thereby denying Canada this processing opportunity; and a US demand that Canada discontinue its policy of requiring uranium to be converted to uranium hexafluoride prior to export.

## 11.9 Electric power

### 11.9.1 Developments

Total installed generating capacity increased from 85 549 MW at the end of 1982 to 95 810 MW by the end of 1985. Of the additions, thermal capacity contributed the least at 1 528 MW, nuclear capacity contributed 3 267 MW, while hydro-electric additions were 5 703 MW.

Total electricity production has continued to grow, reaching 457 million MW h (megawatt hours) in 1986. Hydro generation in 1986 continued to represent about 67% of total output, with thermal accounting for 18% and nuclear for 15%. Tidal and power generation are included with hydro generation.

### 11.9.2 Consumption

The growth of the amount of electricity used in Canada varies considerably from province to province. In 1986, New Brunswick had the strongest growth at 12.9%, Prince Edward Island, Quebec and Nova Scotia were next with growth of 9.2%, 5.5% and 4.3%, respectively. In 1986, for the second consecutive year, Saskatchewan reported a decline in electrical use. The industrial sector provided the largest proportional increase of any sector in 1985, the latest year for which data is available. More homes converting to electricity for space heating, and more businesses converting to electricity for industrial processes, were among the major causes of the increased demand.

### 11.9.3 Provincial highlights

**Nova Scotia.** In 1980, construction started on a tidal power project on the Bay of Fundy near Annapolis Royal. The project has a generating capacity of 20 MW and was completed during 1984. This is the first tidal power project in North America to begin production. Further studies have been undertaken on other areas of the region to assess the potential for further tidal power projects.

**Quebec.** During 1985 another section of the James Bay hydro project began producing electricity.

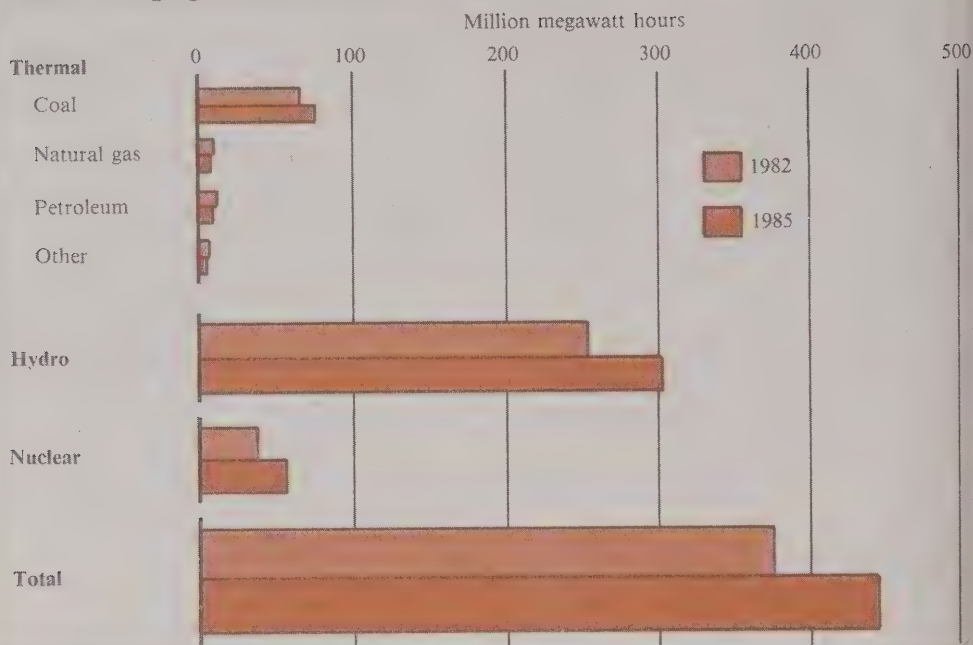
**Ontario.** In July 1986, the Ontario government recommended that construction on the four-unit Darlington plant be allowed to proceed. In 1985 two new nuclear units started operations in the province, Pickering 8 and Bruce 7. The former is the last of eight reactors built on the Pickering site at Lake Ontario east of Toronto. Bruce 7 is the seventh of eight reactors of the Bruce Nuclear Power Development at Lake Huron.

**Manitoba.** Construction on the limestone generating station on the Nelson River is continuing. By September 1986, however, construction work was slightly behind schedule due to unforeseen rock conditions.

**Saskatchewan.** During 1986, Saskatchewan Power announced plans to build the Shand electrical generating station. Shand will be a coal-fired station, consisting of a single 300 MW unit, and is estimated to cost about \$500 million.



Chart 11.2

**Electric energy generation, by method**

**Alberta.** Saskatchewan Power Corporation and Alberta Power Limited have reached an agreement to construct a \$41 million transmission line linking the grids of the two provinces. The interconnecting line will run from Swift Current, Sask., to Empress in Alberta. The HVDC (heavy voltage direct current) interconnection will consist of 175 km of 230 kV transmission line and 10 km of 138 kV line. It will be the first Canadian link between Eastern and Western power systems. Construction of the interconnection, which is subject to regulatory approval in both

provinces, is scheduled to begin in mid-1988, with completion planned for October 1989.

**British Columbia.** The British Columbia government announced a change in its electricity export policy during 1985. The change will allow BC Hydro to pre-build the Site C dam on the Peace River for power export to California. Previously, the policy had allowed for construction of dams for meeting the needs of the province and exporting the surplus on a temporary basis. During 1985, work on the Revelstoke hydro site was completed.

**Sources**

11.1 - 11.9 Industry Division, Statistics Canada (Co-ordinator, Don Wilson); Energy Policy Co-ordination Branch, Energy Policy Programs and Conservation Sector, Department of Energy, Mines and Resources (Co-ordinator, Paula Tissot).



# TABLES

.. not available  
 ... not appropriate or not applicable  
 — nil or zero  
 -- too small to be expressed

e estimate  
 p preliminary  
 r revised

certain tables may not add due to rounding

## 11.1 Canada's primary energy balance, 1983-86 (terajoules)

Year and item	Coal	Crude oil <sup>1</sup>	Natural gas <sup>2</sup>	NGL <sup>3</sup>	Electricity <sup>4</sup>	Steam <sup>5</sup>
1983						
Production	1 066 011	3 232 269	3 250 900	305 078	1 113 296	36 959
Exports	498 412	638 014	766 837	182 149	139 807	...
Imports	453 089	552 719	146	...	9 899	...
Stock variation	-26 314	-36 092	-34 001	8 423	...	...
Other adjustments <sup>6</sup>	1 012	-12 516	10 256	-21 470	...	...
Available	1 048 014	3 170 550	2 528 466	93 036	983 388	36 959
Transformed to other energy forms <sup>7</sup>	1 004 918	3 170 550	75 209	29 910	...	...
Producers' own consumption	148	...	774 596	4 124	...	...
Non-energy use	427	...	148 815	...	...	...
Energy use - final demand	42 521	...	1 510 135	...	...	36 959
Industrial	38 166	...	601 822	...	...	36 959
Transportation	...	...	52 261	...	...	...
Agricultural	...	...	14 897	...	...	...
Residential	3 241	...	454 362	...	...	...
Public administration	352	...	20 393	...	...	...
Commercial and institutional	762	...	366 400	...	...	...
Unaccounted for	—	...	19 711	...	...	...
1984						
Production	1 396 399	3 430 896	3 417 034	326 055	1 199 014	36 043
Exports	736 545	793 336	812 620	184 829	149 168	...
Imports	550 980	547 982	136	44	8 436	...
Stock variation	44 043	15 675	12 503	8 161	...	...
Other adjustments <sup>6</sup>	586	4 707	9 297	3 291	...	...
Available	1 167 377	3 174 574	2 601 344	136 400	1 058 282	36 043
Transformed to other energy forms <sup>7</sup>	1 118 266	3 174 574	67 528	44 147	...	...
Producers' own consumption	1 185	...	721 722	1 816	...	...
Non-energy use	604	...	171 816	...	...	...
Energy use - final demand	47 322	...	1 641 336	...	...	36 043
Industrial	42 862	...	683 134	...	...	36 043
Transportation	...	...	69 618	...	...	...
Agricultural	...	...	17 566	...	...	...
Residential	3 514	...	469 921	...	...	...
Public administration	295	...	20 125	...	...	...
Commercial and institutional	651	...	380 972	...	...	...
Unaccounted for	—	...	-1 058	...	...	...
1985						
Production	1 487 130	3 508 454	3 296 504	317 307	1 290 076	23 743
Exports	802 181	1 089 833	992 254	160 648	156 297	...
Imports	437 126	632 904	192	...	11 136	...
Stock variation	-2 602	8 266	-45 900	-11 069	...	...
Other adjustments <sup>6</sup>	-2 592	33 436	10 456	3 934	...	...
Available	1 122 085	3 076 695	2 360 798	171 662	1 144 915	23 743
Transformed to other energy forms <sup>7</sup>	1 063 471	3 076 695	55 936	51 201	...	...
Producers' own consumption	2 872	...	369 995	2 259	...	...
Non-energy use	4 512	...	174 829	...	...	...
Energy use - final demand	51 230	...	1 763 867	...	...	23 743
Industrial	46 496	...	722 302	...	...	23 743
Transportation	...	...	90 017	...	...	...
Agricultural	...	...	18 546	...	...	...
Residential	3 990	...	505 752	...	...	...
Public administration	200	...	19 987	...	...	...
Commercial and institutional	544	...	407 263	...	...	...
Unaccounted for	—	...	-3 829	...	...	...
1986						
Production	1 382 000	3 507 683	3 452 957	308 693	1 349 561	24 000
Exports	754 600	1 307 684	800 155	108 600	140 162	...
Imports	448 264	792 420	9 864	...	17 845	...
Stock variation	5 274	5 457	...	...	...	...
Other adjustments <sup>6</sup>	12 716	24 697	...	...	...	...
Available	1 083 106	3 011 659	2 662 666	200 093	1 227 244	24 000
Transformed to other energy forms <sup>7</sup>	971 609	3 011 659	...	...	...	...
Producers' own consumption	...	...	...	...	...	...
Non-energy use	...	...	...	...	...	...

**11.1 Canada's primary energy balance, 1983-86 (terajoules) (concluded)**

Year and item	Coal	Crude oil <sup>1</sup>	Natural gas <sup>2</sup>	NGL <sup>3</sup>	Electricity <sup>4</sup>	Steam <sup>5</sup>
1986 (continued)						
Energy use - final demand	..	..	..	...	...	24 000
Industrial	..	..	..	...	...	24 000
Transportation	..	..	..	...	...	...
Agricultural	..	..	..	...	...	...
Residential	..	..	..	...	...	...
Public administration	..	..	..	...	...	...
Commercial and institutional	..	..	..	...	...	...
Unaccounted for	..	..	..	...	...	...

<sup>1</sup> The general terms crude oil or crude oil and equivalent comprise conventional crude oil, condensate, pentanes, synthetic crude oil and experimental crude oil.

<sup>2</sup> Marketable natural gas.

<sup>3</sup> Gas plant natural gas liquids, butane, propane and ethane.

<sup>4</sup> Hydro and nuclear only.

<sup>5</sup> Steam produced from nuclear sources.

<sup>6</sup> Includes interproduct transfers as well as other adjustments.

<sup>7</sup> For electricity and steam generation, coal coke production and for refined petroleum products.

**11.2 Trade in energy (million dollars)**

Item	1983	1984	1985	1986
Crude oil and equivalent				
Exports	3,457	4,404	5,917	3,774
Imports	3,319	3,376	3,700	2,885
Balance	138	1,028	2,217	889
Petroleum products <sup>1</sup>				
Exports	1,344	1,676	1,956	1,279
Imports	756	1,411	1,421	1,164
Balance	588	265	535	115
Natural gas				
Exports	3,847	3,923	3,912	2,483
Imports	..	..	..	..
Balance	3,847	3,923	3,912	2,483
Liquefied petroleum products <sup>2</sup>				
Exports	1,051	1,106	991	868
Imports	195	136	122	..
Balance	856	970	869	..
Coal				
Exports	1,232	1,820	1,996	1,851
Imports	838	1,091	886	755
Balance	394	729	1,110	1,096
Coal products				
Exports	15	30	34	..
Imports	104	112	137	127
Balance	-89	-82	-103	..
Electric energy				
Exports	1,228	1,378	1,408	1,080
Imports	2	13	8	9
Balance	1,226	1,365	1,400	1,071
Radioactive ores				
Exports	63	334	232	167
Imports	112	100	76	..
Balance	-49	234	156	..
Elements and isotopes				
Exports	368	541	590	..
Imports	15	15	28	31
Balance	353	526	562	..
Total				
Exports	12,605	15,212	17,036	..
Imports	5,341	6,254	6,378	..
Balance	7,264	8,958	10,658	..

<sup>1</sup> Contains values of selected petroleum products including products destined for non-energy consumption such as asphalt and lubricating oils and grease.

<sup>2</sup> Includes petroleum refinery and natural gas processing plant propane and butane.

### 11.3 Canada's crude oil imports, by country

Country	Quantity ('000 m <sup>3</sup> )				Value (\$'000,000)			
	1983	1984	1985	1986	1983	1984	1985	1986
Algeria	534	1 196	1 161	...	128	284	284	...
Iran	2 296	743	600	1 589	524	171	138	193
Libya	150	303	166	86	35	72	38	23
Mexico	3 030	2 595	2 117	1 192	645	572	471	157
Nigeria	775	1 061	968	2 334	192	250	229	367
Norway	173	...	379	469	44	...	91	53
Saudi Arabia	364	...	...	1 052	93	...	...	184
United Kingdom	838	2 055	4 895	8 861	200	487	1,172	1,328
United States	1 773	2 331	1 314	1 623	423	501	290	220
Venezuela	3 701	3 921	3 556	2 525	826	866	818	311
Syria	244	...	...	...	50	...	...	...
Egypt	439	306	116	...	97	70	27	...
Tunisia	...	95	424	86	...	23	98	8
Equador	60	111	...	...	14	25	...	41
Other countries	226	133	167	348	48	55	44	...
Total	14 603	14 850	15 863	20 165	3,319	3,376	3,700	2,885

### 11.4 Crude oil and equivalent production and value

Item and province or territory	Production <sup>1</sup> ('000 m <sup>3</sup> )				Value (\$'000,000)			
	1983	1984	1985	1986	1983	1984	1985	1986
Crude oil	—	—	—	—	—	—	—	—
New Brunswick	—	—	—	—	—	—	—	—
Ontario	84	90	112	136	17	20	25	15
Manitoba	738	793	821	825	153	170	181	95
Saskatchewan	9 536	10 813	11 588	11 622	1,783	2,180	2,370	1,270
Alberta	55 415	60 020	57 147	53 185	11,090	12,602	12,401	6,334
British Columbia	2 097	2 108	1 970	2 029	407	436	411	258
Northwest Territories	169	175	1 118	1 410	19	20	195	108
Sub-total, crude oil	68 039	73 999	72 756	69 207	13,469	15,428	15,583	8,080
Pentanes <sup>2</sup>	—	—	—	—	—	—	—	—
Saskatchewan	20	30	26	28	4	6	5	4
Alberta	5 161	5 333	5 645	5 655	1,021	1,123	1,225	500
British Columbia	114	131	125	139	22	27	28	15
Northwest Territories	...	...	32	49	...	...	6	4
Sub-total, pentanes <sup>2</sup>	5 295	5 494	5 828	5 871	1,047	1,156	1,264	523
Synthetic crude oil <sup>3</sup>	—	—	—	—	—	—	—	—
Alberta	10 713	9 681	12 775	16 007	2,625	2,386	2,807	1,636
Total	84 047	89 174	91 359	91 085	17,141	18,970	19,654	10,239
New Brunswick	—	—	—	—	—	—	—	—
Ontario	84	90	112	136	17	20	25	15
Manitoba	738	793	821	825	153	170	181	95
Saskatchewan	9 556	10 843	11 614	11 650	1,787	2,186	2,375	1,274
Alberta	71 289	75 034	75 567	74 847	14,736	16,111	16,433	8,470
British Columbia	2 211	2 239	2 095	2 168	429	463	439	273
Northwest Territories	169	175	1 150	1 459	19	20	201	112

<sup>1</sup> Marketable production.<sup>2</sup> A product of gas plants.<sup>3</sup> Includes experimental crude oil.

**11.5 Petroleum supply and demand (thousand cubic metres)**

Item	1983	1984	1985	1986
<b>Supply</b>				
Production of crude oil and equivalent	84 047	89 174	91 324	91 085
Imports				
Crude oil and equivalent	14 353	14 230	16 435	20 577
Products	3 251	5 305	4 834	6 827
Sub-total, imports	17 604	19 535	21 269	27 404
Interproduct transfers				
Butane received by refineries for blending	1 045	1 543	1 789	1 425
Propane and butane to natural gas liquids stream	-2 124	-2 217	-2 227	-2 196
Sub-total, interproduct transfers	-1 079	-674	-438	-771
Total, supply	100 572	108 035	112 155	117 718
<b>Demand<sup>1</sup></b>				
Domestic demand				
Motor gasoline	33 215	32 942	32 759	32 898
Diesel fuel	14 098	14 916	15 303	15 010
Kerosene, stove oil	874	874	861	773
Light fuel oil	8 719	8 004	7 434	6 999
Heavy fuel oil	9 514	8 344	6 695	7 101
Aviation fuels	4 086	4 322	4 477	4 535
Non-energy products	7 351	7 312	8 029	8 019
Other <sup>2</sup>	4 474	5 721	4 335	3 034
Sub-total, domestic demand	82 331	82 435	79 893	78 369
Exports				
Crude oil and equivalent	16 568	20 601	28 300	33 957
Products	7 337	8 092	9 365	8 550
Sub-total, exports	23 905	28 693	37 665	42 507
Total, demand	106 236	111 128	117 558	120 876
Inventory changes and other adjustments	-5 664	-3 093	-5 403	-3 158

<sup>1</sup> Includes producers consumption.<sup>2</sup> Includes still gas, refinery-produced propane and butane and petroleum coke as well as other adjustments.**11.6 Natural gas production and value**

Province	Production ('000,000 m <sup>3</sup> )				Value (\$'000,000)			
	1983	1984	1985	1986	1983	1984	1985	1986
New Brunswick	2	1	1	1	--	--	--	--
Ontario	461	486	521	504	46	61	65	66
Saskatchewan	909	1 225	1 614	1 814	35	62	93	118
Alberta	57 336	62 476	67 482	62 558	5,958	6,688	6,681	6,106
British Columbia	6 262	6 619	7 282	6 819	347	398	475	431
Yukon and Northwest Territories	163	179	229	201	17	18	20	22
Total	65 133	70 986	77 129	71 897	6,403	7,227	7,334	6,743



**11.7 Natural gas supply and demand (million cubic metres)**

Item	1983	1984	1985	1986
Supply				
Net withdrawals	85 505	89 993	96 650	91 011
Process shrinkage	11 277	11 727	12 306	12 486
Other losses and adjustments	9 096	7 280	7 215	6 628
Marketable gas	65 132	70 986	77 129	71 897
Imports	4	4	5	260
Interproduct transfers <sup>1</sup>	270	245	276	500
Total, supply	65 406	71 235	77 410	72 657
Demand				
Domestic demand				
Industrial	15 829	17 991	19 038	..
Transportation	1 375	1 834	2 373	..
Residential and farm	12 342	12 839	13 819	..
Public administration	536	530	527	..
Commercial and institutional	9 637	10 034	10 734	..
Electrical generation	1 978	1 779	1 474	..
Non-energy use <sup>2</sup>	3 914	4 525	4 608	..
Sub-total, domestic demand	45 611	49 532	52 573	50 141
Exports	20 169	21 402	26 153	21 090
Total, demand	65 780	70 934	78 726	71 231
Inventory change and other adjustments	-374	301	-1 316	1 426

<sup>1</sup> Transfer of one product to another product stream which has similar characteristics.<sup>2</sup> Petrochemical feedstock.**11.8 Natural gas liquids production and value**

Item	Gas plant production ('000 m <sup>3</sup> )				Value (\$'000,000)			
	1983	1984	1985	1986	1983	1984	1985	1986
Propane								
Saskatchewan	67	80	85	57	7	10	9	5
Alberta	4 730	5 087	5 032	4 705	532	614	564	488
British Columbia	63	60	69	209	6	6	6	23
Sub-total, propane	4 860	5 227	5 186	4 971	545	630	579	516
Butane								
Saskatchewan	42	48	49	41	7	7	8	6
Alberta	3 032	3 103	3 064	2 821	543	501	507	412
British Columbia	80	82	76	114	12	11	10	9
Sub-total, butane	3 154	3 233	3 189	2 976	562	519	525	427
Ethane								
Saskatchewan	45	54	43	10	5	5	3	1
Alberta	4 659	5 633	5 468	5 148	521	539	445	350
Sub-total, ethane	4 704	5 687	5 511	5 158	526	544	448	351
Pentane <sup>1</sup>								
Saskatchewan	20	30	29	28	4	6	6	4
Alberta	5 161	5 333	5 643	5 655	1,041	1,123	1,225	692
British Columbia	114	131	119	139	25	27	27	15
Yukon and Northwest Territories	...	...	32	49	...	...	6	4
Sub-total, pentane <sup>1</sup>	5 295	5 494	5 823	5 871	1,070	1,156	1,264	715
Total	18 013	19 641	19 709	18 976	2,703	2,849	2,816	2,009

**11.8 Natural gas liquids production and value (concluded)**

Item	Gas plant production ('000 m <sup>3</sup> )				Value (\$'000,000)			
	1983	1984	1985	1986	1983	1984	1985	1986
Saskatchewan	174	212	206	136	23	28	26	16
Alberta	17 582	19 156	19 207	18 329	2,637	2,777	2,741	1,942
British Columbia	257	273	264	462	43	44	43	47
Yukon and Northwest Territories	—	—	32	49	—	—	6	4

<sup>1</sup> A product of gas plants which is combined with crude oil.

**11.9 Natural gas liquids, supply and demand (thousand cubic metres)**

Item	1983	1984	1985	1986
Supply				
Gas plant production	12 718	14 147	13 886	13 209
Imports	—	2	—	—
Interproduct transfers				
Butane to refineries for blending	-1 045	-1 543	-1 789	-1 425
Propane and butane received from refineries <sup>1</sup>	2 124	2 217	2 227	2 196
Sub-total, interproduct transfers	1 079	674	438	771
Total, supply	13 797	14 821	14 324	13 980
Demand				
Domestic energy use	2 735	2 952	3 319	3 200
Non-energy use <sup>2</sup>	2 301	3 565	4 565	5 000
Exports	7 688	7 661	6 473	4 525
Total, demand	12 724	14 178	14 357	12 725
Inventory change and other adjustments	1 073	643	-33	1 255

<sup>1</sup> Petroleum refinery produced propane and butane for domestic sale or export.

<sup>2</sup> Excludes any propane or butane which became part of the petrochemical feedstocks in petroleum refineries.

**11.10 Coal production and value, by type and province**

Type and province	Production ('000 t)				Value (\$'000,000)			
	1983	1984	1985	1986	1983	1984	1985	1986
Bituminous								
Nova Scotia	2 986	3 093	2 800	2 695	145	162	169	165
New Brunswick	565	564	560	490	30	30	30	26
Alberta	7 315	7 630	7 841	6 994	349	321	307	275
British Columbia	11 687	20 775	23 110	20 362	574	1,017	1,102	940
Sub-total, bituminous	22 553	32 062	34 311	30 541	1,098	1,530	1,608	1,406
Sub-bituminous								
Alberta	14 564	15 422	16 871	18 225	122	137	151	160
Lignite								
Saskatchewan	7 760	9 917	9 672	8 281	84	127	125	100
Total	44 877	57 401	60 854	57 047	1,304	1,794	1,884	1,666

**11.11 Coal, supply and demand (thousand tonnes)**

Item	1983	1984	1985	1986
Supply				
Production				
Imports	44 877	57 401	60 854	57 047
	15 112	18 376	14 579	13 312
Total, supply	59 989	75 777	75 433	70 359
Demand				
Domestic demand				
Electrical generation	36 297	40 270	39 470	36 400
Coke plants	5 724	6 678	6 334	5 900
Steam generation	248	206	96	85
Industrial	1 464	1 615	1 676	..
Residential	140	152	182	..
Public administration	12	10	7	..
Commercial and institutional	49	42	36	..
Non-energy use	15	20	151	..
Sub-total, domestic demand	43 949	48 993	47 952	44 000
Exports	17 011	25 138	27 378	25 754
Total, demand	60 960	74 131	75 330	69 754
Inventory change and other adjustments	-971	1 646	103	605

**11.12 Electricity generated and consumed, by province (thousand megawatt hours)**

Province or territory	Generation				Domestic demand			
	1983	1984	1985	1986	1983	1984	1985	1986
Newfoundland	40 155	45 648	41 494	40 600	7 829	8 532	8 633	8 800
Prince Edward Island	12	2	2	12	473	494	522	570
Nova Scotia	6 165	7 236	7 457	7 400	6 209	6 867	6 904	7 200
New Brunswick	11 657	12 396	11 401	12 200	8 185	9 361	9 385	10 600
Quebec	110 498	122 179	137 028	148 600	114 160	123 709	132 794	140 100
Ontario	117 889	120 606	121 783	125 700	102 309	110 357	112 713	117 300
Manitoba	22 090	21 489	22 777	24 100	12 039	12 806	13 514	13 900
Saskatchewan	10 389	11 543	11 838	11 900	9 529	10 919	10 223	10 100
Alberta	29 127	31 160	33 432	34 900	27 100	28 968	30 929	32 200
British Columbia	47 174	52 379	59 124	50 800	41 271	42 154	44 750	45 200
Yukon and Northwest Territories	695	778	846	950	612	702	774	880
Total	395 851	425 416	447 182	457 162	329 716	354 869	371 141	386 850

**11.13 Electricity supply and demand (thousand megawatt hours)**

Item	1983	1984	1985	1986
Supply				
Production				
Hydro				
Nuclear	263 391	283 531	301 289	307 645
Thermal	46 218	49 253	57 066	67 233
	86 242	92 631	88 827	82 284
Sub-total, production	395 851	425 415	447 182	457 162
Imports	2 750	2 343	3 093	4 957
Total, supply	398 601	427 758	450 275	462 119

**11.13 Electricity supply and demand** (thousand megawatt hours) (concluded)

Item	1983	1984	1985	1986
<b>Demand</b>				
Domestic demand				
Manufacturing	122 684	137 511	146 951	..
Other industrial	19 858	22 660	24 217	..
Transportation	2 392	2 584	2 692	..
Agriculture	8 277	8 692	8 849	..
Residential	95 863	100 483	103 728	..
Public administration	9 067	8 399	9 581	..
Commercial and institutional	71 572	74 542	75 123	386 850
Sub-total, domestic demand	329 713	354 871	371 141	386 850
Exports	38 835	41 436	43 516	38 934
Total, demand	368 548	396 307	414 657	425 784
Own use, transmission losses and other adjustments	30 053	31 451	35 618	36 335

**11.14 Fuels used to generate thermal electricity<sup>1</sup> by province**

Province or territory	Year	Coal '000 t	Natural gas '000,000 m <sup>3</sup>	Petroleum products '000 m <sup>3</sup>	Uranium tonnes	Other <sup>2</sup> MJ
Newfoundland	1982	—	—	334	—	—
	1983	—	—	191	—	—
	1984	—	—	259	—	—
	1985	—	—	492	—	—
Prince Edward Island	1982	—	—	19	—	—
	1983	—	—	10	—	—
	1984	—	—	7	—	—
	1985	—	—	7	—	—
Nova Scotia	1982	1 300	—	552	—	465
	1983	1 400	—	398	—	315
	1984	1 972	—	250	—	495
	1985	2 147	—	197	—	640
New Brunswick	1982	548	—	1 006	5	1 610
	1983	564	—	607	104	1 335
	1984	610	—	618	108	1 450
	1985	521	—	597	112	920
Quebec	1982	—	—	105	—	100
	1983	—	—	94	61	30
	1984	—	—	65	67	—
	1985	—	—	63	66	60
Ontario	1982	12 490	270	172	633	765
	1983	13 105	386	157	687	700
	1984	13 478	391	62	765	670
	1985	11 068	342	37	908	655
Manitoba	1982	184	5	22	—	135
	1983	109	8	22	—	125
	1984	163	—	22	—	155
	1985	253	1	25	—	170
Saskatchewan	1982	5 897	235	38	—	125
	1983	6 625	159	25	—	680
	1984	7 925	166	27	—	765
	1985	8 290	143	18	—	775
Alberta	1982	13 309	1 065	7	—	4 650
	1983	14 493	1 365	12	—	4 625
	1984	16 122	1 110	15	—	4 395
	1985	17 192	907	7	—	2 000
British Columbia	1982	—	61	100	—	5 950
	1983	—	60	125	—	5 640
	1984	—	108	120	—	3 355
	1985	—	80	124	—	4 400
Yukon and Northwest Territories	1982	—	—	92	—	—
	1983	—	—	62	—	—
	1984	—	—	77	—	—
	1985	—	—	78	—	—



**11.14 Fuels used to generate thermal electricity<sup>1</sup> by province (concluded)**

Province or territory	Year	Coal '000 t	Natural gas '000,000 m <sup>3</sup>	Petroleum products '000 m <sup>3</sup>	Uranium tonnes	Other <sup>2</sup> MJ
Canada	1982	33 728	1 636	2 447	638	13 800
	1983	36 296	1 978	1 703	852	13 450
	1984	40 270	1 775	1 522	940	11 285
	1985	39 471	1 473	1 645	1 086	9 620

<sup>1</sup> For utilities, industrial and other producers of thermal electricity.<sup>2</sup> Includes some petroleum products (tar, coke), manufactured gases, wood, spent pulping liquor and other miscellaneous fuels measured in estimated megajoules.**11.15 Electric energy generation<sup>1</sup> by method and province (thousand megawatt hours)**

Province or territory	Year	Thermal				Hydro	Nuclear	Total
		Coal	Natural gas	Petroleum	Other			
Newfoundland	1982	—	—	1 242	—	1 242	43 096	—
	1983	—	—	690	—	690	39 465	—
	1984	—	—	852	—	852	44 773	—
	1985	—	—	1 847	—	1 847	39 648	—
Prince Edward Island	1982	—	—	35	—	35	—	—
	1983	—	—	12	—	12	—	—
	1984	—	—	2	—	2	—	—
	1985	—	—	2	—	2	—	—
Nova Scotia	1982	2 790	—	2 667	93	5 551	1 025	—
	1983	2 569	—	2 536	63	5 168	997	—
	1984	4 866	—	1 228	99	6 193	1 043	—
	1985	5 540	—	875	128	6 543	914	—
New Brunswick	1982	1 275	—	3 939	322	5 536	2 645	—
	1983	963	—	2 536	267	3 766	3 132	—
	1984	1 374	—	2 178	290	3 842	3 401	—
	1985	1 054	—	2 447	184	3 685	2 289	—
Quebec	1982	—	—	190	—	190	—	—
	1983	—	—	140	20	210	99 811	—
	1984	—	—	148	6	146	108 368	—
	1985	—	—	140	12	152	118 608	—
Ontario	1982	34 274	2 084	385	153	36 897	37 611	—
	1983	35 992	1 327	416	140	37 875	40 898	—
	1984	37 313	1 351	162	134	38 960	40 826	—
	1985	30 320	1 381	118	131	31 950	41 376	—
Manitoba	1982	172	15	80	27	294	20 495	—
	1983	81	10	82	25	198	21 892	—
	1984	150	9	73	31	263	21 226	—
	1985	242	8	83	34	367	22 410	—
Saskatchewan	1982	6 640	731	95	25	7 491	2 360	—
	1983	7 278	676	88	136	8 178	2 210	—
	1984	9 088	495	105	153	9 841	1 705	—
	1985	9 369	335	38	155	9 897	1 941	—
Alberta	1982	19 474	5 087	31	930	25 522	1 590	—
	1983	21 232	5 413	76	925	27 646	1 480	—
	1984	25 549	3 216	89	879	29 733	1 427	—
	1985	27 786	3 803	32	400	32 021	1 411	—
British Columbia	1982	—	409	451	1 190	2 050	46 130	—
	1983	—	455	769	1 128	2 352	44 822	—
	1984	—	740	718	671	2 129	50 250	—
	1985	—	581	611	880	2 072	57 052	—
Yukon and Northwest Territories	1982	—	—	294	—	294	547	—
	1983	—	—	202	—	202	493	—
	1984	—	—	229	—	229	549	—
	1985	—	—	293	—	293	553	—
Canada	1982	64 625	8 326	9 409	2 760	85 120	255 310	—
	1983	68 115	7 881	7 547	2 690	86 233	263 757	—
	1984	78 340	5 811	5 784	2 257	92 192	283 808	—
	1985	74 311	6 108	6 486	1 924	88 829	301 290	—

For utilities and industry, total generation shown may be higher than net generation due to some station service included in this table.

**11.16 Wells drilled, by type and region<sup>1</sup>**

Region	Oil				Gas			
	1983	1984	1985	1986	1983	1984	1985	1986
Eastern Canada								
Offshore East Coast	3	4	5	4	5	5	6	6
Atlantic provinces	—	—	—	—	—	—	3	—
Quebec	—	—	—	—	—	—	—	—
Ontario	36	28	24	21	59	56	61	41
Sub-total, Eastern Canada	39	32	29	25	64	61	70	47
Western Canada								
Manitoba	223	216	227	128	—	—	—	—
Saskatchewan	1,412	2,120	2,794	748	166	435	443	207
Alberta	2,457	3,189	3,945	2,027	1,188	1,397	2,022	1,116
British Columbia	26	106	95	66	19	31	57	51
Yukon and Northwest Territories	32	41	31	20	1	3	6	5
Sub-total, Western Canada	4,150	5,672	7,092	2,989	1,374	1,866	2,528	1,379
Total, Canada	4,189	5,704	7,121	3,014	1,438	1,927	2,598	1,426
	Dry				Total			
	1983	1984	1985	1986	1983	1984	1985	1986
Eastern Canada								
Offshore East Coast	14	13	16	6	22	22	27	16
Atlantic provinces	1	3	1	1	1	3	4	1
Quebec	1	1	7	—	1	1	7	—
Ontario	72	84	79	31	167	168	164	93
Sub-total, Eastern Canada	88	101	103	38	191	194	202	109
Western Canada								
Manitoba	24	30	38	9	247	246	265	137
Saskatchewan	244	361	510	104	1,822	2,916	3,747	1,059
Alberta	905	1,337	1,702	839	4,550	5,923	7,669	3,982
British Columbia	31	52	72	40	76	189	224	157
Yukon and Northwest Territories	8	21	26	24	41	65	63	49
Sub-total, Western Canada	1,212	1,801	2,348	1,016	6,736	9,339	11,968	5,384
Total	1,300	1,902	2,451	1,054	6,927	9,533	12,170	5,493

<sup>1</sup> Does not include suspended or service and miscellaneous wells.**11.17 Natural gas and oil pipelines distances in Canada (kilometres)**

Item and province	1982	1983	1984	1985
Natural gas				
Gathering and transmission systems				
New Brunswick	42	42	42	42
Quebec	289	289	1 105	1 145
Ontario	12 342	12 593	12 800	13 131
Manitoba	2 866	2 970	2 982	2 990
Saskatchewan	13 451	13 984	15 905	15 643
Alberta	39 498	43 558	44 843	45 859
British Columbia	8 652	8 815	8 933	9 167
Yukon and Northwest Territories	55	55	55	55
Total	77 195	82 306	86 665	88 032

**11.17 Natural gas and oil pipelines distances in Canada (kilometres) (concluded)**

Item and province	1982	1983	1984	1985
<b>Distribution systems</b>				
New Brunswick	146	146	146	146
Quebec	3 502	3 710	4 359	4 669
Ontario	34 221	35 134	36 638	37 699
Manitoba	3 264	3 182	3 246	4 340
Saskatchewan	5 905	11 547	19 135	27 598
Alberta	33 059	33 583	36 753	37 413
British Columbia	11 847	12 502	13 148	13 533
<b>Total</b>	<b>91 944</b>	<b>99 804</b>	<b>113 425</b>	<b>125 398</b>
<b>Crude oil and products<sup>1</sup></b>				
<b>Gathering and transmission systems</b>				
Quebec	699	701	588	594
Ontario	3 584	3 643	3 658	3 593
Manitoba	2 033	1 979	1 932	2 157
Saskatchewan	8 216	8 130	8 732	8 078
Alberta	19 120	19 395	21 946	24 526
British Columbia	2 688	2 420	2 455	2 484
Yukon and Northwest Territories	89	89	89	841
<b>Total</b>	<b>36 429</b>	<b>36 357</b>	<b>39 400</b>	<b>42 273</b>

<sup>1</sup> Includes various refined petroleum products as well as natural gas liquids.

**11.18 Oil refining, by province**

Year and province or territory	No.	Capacity '000 m <sup>3</sup> /yr	% of total	Year and province or territory	No.	Capacity '000 m <sup>3</sup> /yr	% of total
<b>1982</b>				<b>1984</b>			
Newfoundland	1	810	0.6	Newfoundland	—	—	—
Nova Scotia	2	5 906	4.7	Nova Scotia	2	5 906	5.1
New Brunswick	1	13 505	10.6	New Brunswick	1	13 505	11.7
Quebec	6	29 908	23.5	Quebec	4	22 104	19.2
Ontario	8	43 833	34.5	Ontario	7	41 282	35.8
Manitoba	1	1 741	1.4	Manitoba	—	—	—
Saskatchewan	2	2 858	2.3	Saskatchewan	2	2 858	2.5
Alberta	7	18 367	14.4	Alberta	7	19 896	17.2
British Columbia	7	10 041	7.9	British Columbia	6	9 683	8.4
Northwest Territories	1	168	0.1	Northwest Territories	1	168	0.1
<b>Total</b>	<b>36</b>	<b>127 137</b>	<b>100.0</b>	<b>Total</b>	<b>30</b>	<b>115 402</b>	<b>100.0</b>
<b>1983</b>				<b>1985</b>			
Newfoundland	1	80	0.1	Newfoundland	—	—	—
Nova Scotia	2	5 906	5.2	Nova Scotia	2	5 906	5.0
New Brunswick	1	13 505	11.9	New Brunswick	1	13 505	11.6
Quebec	4	22 104	19.4	Quebec	4	22 276	19.0
Ontario	7	41 282	36.2	Ontario	7	39 175	33.5
Manitoba	—	—	—	Manitoba	—	—	—
Saskatchewan	2	2 858	2.5	Saskatchewan	2	2 121	2.7
Alberta	7	18 367	16.1	Alberta	6	23 143	19.8
British Columbia	6	9 683	8.5	British Columbia	6	9 683	8.3
Northwest Territories	1	168	0.1	Northwest Territories	1	168	0.1
<b>Total</b>	<b>31</b>	<b>113 953</b>	<b>100.0</b>	<b>Total</b>	<b>29</b>	<b>115 977</b>	<b>100.0</b>

**11.19 Installed generating capacity<sup>1</sup> (megawatts)**

Province or territory	Year	Conventional steam	Gas turbine	Internal combustion	Hydro	Nuclear	Total
Newfoundland	1982	503	170	79	6 210	—	6 962
	1983	503	170	79	6 213	—	6 965
	1984	505	170	81	6 213	—	6 969
	1985	505	170	82	6 416	—	7 173
Prince Edward Island	1982	71	41	7	—	—	119
	1983	71	41	11	—	—	123
	1984	71	41	11	—	—	123
	1985	71	41	11	—	—	123
Nova Scotia	1982	1 298	205	1	361	—	1 865
	1983	1 627	205	1	366	—	2 199
	1984	1 783	205	1	366	—	2 355
	1985	1 783	205	1	366	—	2 355
New Brunswick	1982	1 860	23	5	901	680	3 469
	1983	1 876	23	5	901	680	3 485
	1984	1 867	23	5	903	680	3 478
	1985	1 868	23	5	903	680	3 479
Quebec	1982	640	363	142	21 351	266	22 762
	1983	640	363	114	22 585	951	24 653
	1984	638	363	109	24 878	951	26 939
	1985	638	363	110	24 929	951	26 991
Ontario	1982	12 872	659	10	7 131	5 600	26 272
	1983	12 898	730	10	7 131	6 140	26 909
	1984	12 900	728	10	7 130	8 182	28 950
	1985	12 895	618	10	7 172	8 182	28 877
Manitoba	1982	447	24	32	3 641	—	4 144
	1983	446	24	32	3 641	—	4 143
	1984	446	24	30	3 641	—	4 141
	1985	446	24	31	3 641	—	4 142
Saskatchewan	1982	1 624	104	18	576	—	2 322
	1983	1 922	104	7	576	—	2 609
	1984	1 922	155	6	576	—	2 659
	1985	1 922	155	6	576	—	2 659
Alberta	1982	5 125	524	44	734	—	6 427
	1983	5 931	524	44	734	—	7 233
	1984	5 916	524	46	734	—	7 220
	1985	5 916	524	45	734	—	7 219
British Columbia	1982	1 426	339	123	8 998	—	10 886
	1983	1 419	339	109	8 997	—	10 864
	1984	1 414	154	96	10 379	—	12 043
	1985	1 351	154	94	10 844	—	12 443
Yukon and Northwest Territories	1982	1	—	178	106	—	285
	1983	—	—	181	131	—	312
	1984	—	—	183	131	—	314
	1985	—	—	182	131	—	313
Confidential	1982	35	—	1	—	—	36
	1983	35	—	1	—	—	36
	1984	35	—	1	—	—	36
	1985	35	—	1	—	—	36
Canada	1982	25 902	2 452	640	50 009	6 546	85 549
	1983	27 368	2 523	594	51 275	7 771	89 531
	1984	27 497	2 387	579	54 951	9 813	95 227
	1985	27 430	2 277	578	55 712	9 813	95 810
Net additions	1982	75	139	—	640	680	1 534
	1983	1 466	71	-46	1 266	1 225	3 982
	1984	129	-136	-15	3 676	2 042	5 696
	1985	-67	-110	-1	761	—	583
1982 % increase over	1981	0.3	5.7	—	1.3	11.6	1.8
1983 % increase over	1982	5.7	2.9	-7.2	2.5	18.7	4.7
1984 % increase over	1983	0.5	-5.4	-2.5	7.2	26.3	6.4
1985 % increase over	1984	-0.2	-4.6	-0.2	1.4	—	0.6

<sup>1</sup> Name plate rating; rating of generator under specified conditions as designed by the manufacturer.



**11.20 Capital expenditures in energy-related industries (million dollars)**

Item	1982	1983	1984	1985 <sup>1</sup>	1986 <sup>2</sup>
Industries related to petroleum and natural gas					
Conventional crude oil and natural gas	6,358	6,141	6,452	7,142	6,717
Non-conventional crude oil	386	423	495	993	1,108
Refined petroleum and coal products	1,224	841	432	288	351
Natural gas processing plants	523	196	340	331	274
Transportation	1,994	660	795	623	620
Natural gas distribution	518	517	604	5,660	514
Marketing	320	374	423	353	388
Oil and gas drilling contractors	174	155	44	54	26
Sub-total	11,497	9,307	9,585	15,444	9,998
Electric power systems	8,408	7,770	6,340	5,903	5,752
Coal mines	1,030	1,225	832	410	314
Uranium	405	413	186	163	149
Total	21,340	18,715	16,943	21,920	16,213

<sup>1</sup> Preliminary actual expenditures.<sup>2</sup> Intentions.**11.21 Expenditures on energy R&D in the business enterprise sector (million dollars)**

Area of technology	1982	1983	1984
Renewable resources	28	27	35
Transportation and transmission	38	44	61
Conservation	60	79	73
Fossil fuels	351	250	257
Nuclear	44	54	64
Other	50	41	52
Total	571	495	542

**Sources**

11.1 - 11.20 Energy Section, Industry Division, Statistics Canada.

11.21 Science, Technology and Capital Stock Division, Statistics Canada.



CHAPTER 12

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**SCIENCE AND  
TECHNOLOGY**

## CHAPTER 12

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### SCIENCE AND TECHNOLOGY

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"Most of the research work done in Canada up to the present time has been carried out in the laboratories of the large universities . . . Recognizing the value of this work in training the right kind of men for research in scientific and industrial laboratories, the Research Council has devoted about one-third of its annual appropriation to provide bursaries, studentships and fellowships for the purpose of enabling a larger number of graduates to follow up this line of work." (1924)

"At the session of Parliament in 1886, an Act was passed providing for the establishment of ex-

perimental farms in each of the Provinces, and in the Territories. The central one has been established near Ottawa . . . It is proposed that the experiments shall relate to agriculture, horticulture, stock raising, butter and cheese making, and forestry, and that the results shall be published in bulletins as often as considered necessary, and distributed among the farming population. There can be little doubt that this idea, if properly carried out, will be of immense service to agriculturalists generally in this country . . ." (1886)



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Total expenditures for Science and Technology were estimated at about \$4.2 billion in 1986-87, an increase of less than 2% over 1985-86. This represents 3.6% of the government's total spending estimates.

Almost 35,000 persons worked on the government's Science and Technology activities in 1986-87, slightly

lower than 1985-86. The largest employers were Agriculture Canada, Statistics Canada, Environment Canada and the National Research Council.

With estimated expenditures of \$443 million in 1986-87, the National Research Council is the largest federal spender on Science and Technology activities.

## CHAPTER 12

# SCIENCE AND TECHNOLOGY

Science and technology (S&T) is a term used to encompass activities which involve the generation, dissemination and initial application of new scientific knowledge and technology. In Canada S&T is used to foster the development of natural resources, to aid industry, and to stimulate economic growth both nationally and regionally. The federal and provincial governments, industry and universities fund and perform S&T.

Science and technological activities are undertaken in the natural sciences and engineering (NSE) and in the social sciences and humanities (SSH). In both of these fields of science two types of scientific endeavour are undertaken: research and development (R&D) which is creative work undertaken on a systematic basis to increase the stock of knowledge; and related scientific activities (RSA) which are activities that complement and extend R&D by contributing to the generation, dissemination and application of scientific and technological knowledge.

In this chapter the primary focus is on the federal resources devoted to S&T including federal support to industrial development, basic research and the development of highly skilled people through the university sector. More funds were spent in the National Capital Region (29%), than elsewhere. Ontario is the second largest recipient of federal science funds (22%) and Quebec is the third (17%). The western provinces received 23% and the Atlantic provinces, 10%.

### 12.1 Federal resources for science and technology

Total expenditures for S&T were estimated at about \$4.2 billion in 1986-87, an increase of less than 2% over 1985-86. This represents 3.6% of the government's total spending estimates. Over 10 federal departments and agencies spend funds for S&T to support departmental missions and to aid industrial development through both in-house (intramural) activities and by funding S&T to be performed by the private sector

(extramural). Basic research in the university sector is funded by the government primarily through three granting councils: the Natural Sciences and Engineering Research Council, the Medical Research Council and the Social Sciences and Humanities Research Council.

Almost 35,000 persons were engaged in performing the government's S&T activities in 1986-87, slightly lower than the previous year. The largest employers were Agriculture Canada, Statistics Canada, Environment Canada and the National Research Council.

#### 12.1.1 Natural sciences and engineering

In the natural sciences such as biology, chemistry, physics, astronomy and geology and in engineering, estimated expenditures were \$3.3 billion in 1986-87, with \$2.4 billion (73%) for R&D and \$0.9 billion (27%) for RSA. Most of the RSA expenditures (\$433 million) was for data collection related to oceanographic and hydrographic needs and for environmental baseline studies.

About 56% of R&D expenditures were for intramural activities, 19% for R&D performed by industry and 20% for R&D performed by the university sector. The remaining expenditures were for R&D by private non-profit organizations, provincial and municipal governments, the foreign sector and other Canadian performers.

Since 1981-82 total expenditures in natural sciences and engineering have increased by 56%; both R&D and RSA having the same growth rate.

Human resources for R&D in the natural sciences and engineering totalled 16,441 person-years and RSA, 7,843 in 1986-87.

Further details of the five largest participants are provided in section 12.2.

#### 12.1.2 Social sciences and humanities

The social sciences and humanities embrace all disciplines involved in studying human actions and conditions and the social, economic and institutional mechanisms affecting humans.

Estimated 1986-87 expenditures in this field of science were \$894 million with 80% for RSA and 20% for R&D.

The bulk of the RSA expenditures was planned for data collection, dominated by the statistical activities of Statistics Canada. About 90% of the expenditures on RSA are performed intramurally. In R&D, 37% of the expenditures are intramural with 31% being spent in the university sector, primarily as a result of the activities of the Social Sciences and Humanities Research Council.

Expenditures on social sciences and humanities are affected by the quinquennial censuses. The increase of 14% for 1986-87 spending is due to the 1986 Census.

Human resources devoted to S&T in 1986-87 were 8,148 person-years for RSA and 675 for R&D.

Further details for the five largest participants are provided in section 12.3.

## 12.2 Major participants in natural sciences and engineering

Five federal departments and agencies fund 58% of the total activities in natural sciences and engineering. The scientific and technological endeavours of these departments and agencies cover a broad range of activities including in-house facilities for industry research, support for industrial development, support for basic research and training of scientific personnel, and performing of research in support of departmental missions.

### 12.2.1 National Research Council

Created in 1917, the National Research Council (NRC) has an objective to create, acquire and promote the application of scientific and engineering knowledge to meet Canadian needs for economic, regional and social development. With estimated expenditures of \$443 million in 1986-87, it is the largest federal spender on S&T activities. The total overall growth of NRC expenditures has been about 55% since 1981-82, however, expenditures have decreased 8% since 1984-85. NRC expects to spend about 72% of its 1986-87 budget intramurally, 17% in the industrial sector, 7% in the university sector and the balance among other performers.

NRC covers a wide range of scientific and technological activities in the following six areas: national competence in the natural sciences and engineering; research on problems of economic and social importance; research in direct support of industrial innovation and development;

national facilities; research and services related to physical standards; and scientific and technical information. The research laboratories are contained in the divisions of biological sciences, building research, chemistry, electrical engineering, energy, mechanical engineering and physics and in the Canada Centre for Space Science, the Herzberg Institute of Astrophysics and the National Aeronautical Establishment.

NRC also operates a series of regional laboratories:

—The Institute for Marine Dynamics at St. John's, Nfld.,

—The Atlantic Research Laboratory at Halifax, NS,

—The Industrial Materials Research Institute in Boucherville, Que.,

—The Plant Biotechnology Institute in Saskatoon, Sask.,

—The Western Laboratory in Vancouver, BC,

—The Biotechnology Research Institute in Montreal, Que.

In addition to its laboratory facilities which are used to perform research in support of NRC's mission, and under contract to the private sector, NRC operates the Industry Development Office. This Office was expected to provide an estimated \$70 million in 1986-87 in grants and contributions to industry through two industrial support programs: an industrial research assistance program (IRAP) and a program of industry laboratory projects (PILP).

IRAP provides a wide range of support by paying salaries for researchers for specific projects in small- and medium-sized businesses, and by providing technical advice to firms. These services are delivered to industry by a series of regional offices across the country, some of them operated under contract by the provincial research organizations (see section 12.5). PILP is designed to assist companies in technology transfer from both government and university laboratories.

Under the scientific and technical information program, NRC operates the Canada Institute for Scientific and Technical Information (CISTI).

### 12.2.2 Agriculture Canada

The federal department of agriculture (Agriculture Canada) with estimated spending of \$426 million is the second largest spender in natural sciences and engineering. The bulk of Agriculture Canada expenditures, 86%, was planned for R&D with 95% being performed intramurally. Only 3% of the department's expenditures were in the industry sector and 2% in the university and other sectors.



The bulk of the department's S&T activities is in the Research Branch which operates 52 research units across Canada. These specialize in local problems. In addition Agriculture Canada operates six national research institutes: the Animal Research Centre, the Biosystematics Research Institute, the Chemistry and Biology Research Institute, the Food Research Institute, the Land Resource Research Institute, and the Engineering and Statistical Research Institute. S&T activities include research on soil properties; water use and water management; energy utilization; environmental quality research; research on production development including animal crossbreeding, feed lot systems and genetics; research relating to processing distribution, retailing and consumer concerns; and forestry research.

### 12.2.3 Energy, Mines and Resources Canada

The federal department of energy, mines and resources (EMR Canada) planned to spend about \$385 million on its S&T activities in 1986-87, 70% intramurally and 17% in the industrial sector. EMR operates several laboratories across Canada including the Atlantic Geoscience Centre in Nova Scotia and the Pacific Geoscience Centre in British Columbia; the Canada Centre for Mineral and Energy Technology (CANMET), the Canada Centre for Remote Sensing and the Earth Physics Branch in Ottawa; the Institute for Sedimentary and Petroleum Geology in Calgary; the Cordilleran Geology Division in Vancouver; and coal research laboratories in Edmonton and Calgary, Alta. and Sydney, NS.

The department is responsible for geological surveys and the mapping of the Canadian landmass. The department also develops R&D policies to support national energy options, management and technical evaluation of the government's energy R&D program. See also Chapter 10, Mines and minerals.

### 12.2.4 Environment Canada

The federal department of the environment (Environment Canada) is fourth of the major spenders with estimated spending of \$361 million for S&T in the natural sciences and engineering. Over 90% was being spent in its own laboratories with about one-fifth on R&D and four-fifths on NSA, primarily for data collection.

Environment Canada's activities occur in its four services: atmospheric environment, environmental conservation, environmental protection and Parks Canada. Environment Canada operates a series of laboratories across the country to cope with both regional and national

environmental concerns. The inland waters directorate and the National Water Research Institute are in Burlington, Ont. and the National Hydrology Institute is in Saskatoon, Sask.

The atmospheric environment service was responsible for about 66% of the department's S&T expenditures. It provides historical, current and predictive meteorological, sea-state and ice information for all areas of Canada and contiguous waters. The service provides assessments of human activities in the atmospheric environment and conducts research on the behaviour of the atmosphere, wind-wave mechanisms and the dynamics of ice.

About 26% of Environment Canada's funding for S&T was budgeted for environmental conservation which includes water resources development; water quantity and quality research; hydrometric data collection and the development of inventories of land capability and use.

### 12.2.5 Natural Sciences and Engineering Research Council

The Natural Sciences and Engineering Research Council (NSERC) is the largest of the two university granting councils in natural sciences and engineering with planned expenditures of \$326 million in 1986-87. The second council is the Medical Research Council with expenditures of \$165 million. About 92% of NSERC's budget goes to Canadian universities and 2% to foreign performers with the bulk of the balance devoted to administration. Two activities account for 80% of the Council's program: grants to individuals and groups for expenses in support of research activities (research grants); and grants for advanced study and professional development in universities.

## 12.3 Major participants in social sciences and humanities

Five federal departments and agencies fund 64% of the total expenditures in the social sciences and humanities. The scientific and technological endeavours cover a wide range of activities including collection and dissemination of information, funding of basic research in universities and research on third world social problems.

### 12.3.1 Statistics Canada

With estimated 1986-87 expenditures of \$350 million, Statistics Canada is by far the largest spender on social sciences and humanities (about five times that of the second largest spender). As the statistical agency of the federal government, Statistics Canada collects and provides

statistical information needed for understanding the Canadian economy and Canadian institutions and for the development of economic and social policies and programs.

Three major technical fields in which the agency provides information are: national accounts; business and trade; and institutions and labour. For additional information, see Tables 12.2, 12.5 and 12.7.

### **12.3.2 Social Sciences and Humanities Research Council**

The estimated 1986-87 expenditures of the Social Sciences and Humanities Research Council (SSHRC) were \$71 million with 68% to be spent on R&D in social sciences and humanities. Canadian universities receive about 80% of the Council's budget.

The Council objectives are: to encourage excellence in research; to enhance the advancement of knowledge by assisting independent research; to promote research which contributes to the fulfilment of national objectives; to encourage the diffusion of scholarly works; and to assist in the training of researchers. Grants are awarded to career scholars and for the international exchanges of scholars. Grants are also provided to learned societies to support scholarly publications and major editorial projects.

### **12.3.3 National Museums of Canada**

National Museums planned to spend an estimated \$71 million on social sciences and humanities in 1986-87 to demonstrate the products of nature and the works of man. The bulk of this expenditure was slated for museum services but about 12% was to be spent on R&D in the social sciences and humanities. Expenditures on social sciences and humanities were set at 67% of the total budget with the balance to be spent on natural sciences and engineering activities. The corporation operates the National Gallery of Canada, the Canadian Museum of Civilization, the National Museum of Natural Sciences, and the National Museum of Science and Technology.

This Crown corporation operates a museum assistance program providing funds to non-profit organizations to develop museum services.

### **12.3.4 National Library of Canada**

The National Library of Canada estimated 1986-87 expenditures at \$42 million, all for activities in the social sciences and humanities. Its objective is to facilitate the use of the library resources of the country by Canadians. The five units which comprise the library are the library

systems centre, public services, cataloguing, collections, and conservation and technical services.

The National Library operates an automated on-line library data-base management system called DOBIS. See also Chapter 15, Cultural activities and leisure.

### **12.3.5 International Development Research Centre**

Estimated 1986-87 expenditures on social sciences and humanities for the International Development Research Centre (IDRC) were \$41 million which represents about 50% of its budget. The balance of the Centre's expenditures was for natural sciences and engineering activities. Approximately 75% of its social sciences and humanities expenditures are for R&D, making IDRC second only to SSHRC as an R&D funder.

The Centre's objective is to initiate, encourage, support and conduct research into the problems of the developing regions of the world and into applying knowledge to the economic and social advancement of these regions.

## **12.4 Application areas of federal funding**

The government has adopted certain priority areas for S&T spending. Individual departments and agencies contribute to these priorities within the limits of their own mandates. Expenditures on application areas are detailed in Table 12.5.

The third highest spending is for energy S&T, estimated at \$351 million for 1986-87. Activities include research on fossil fuels, renewable energy sources, nuclear sources, conservation and transportation. Atomic Energy of Canada Ltd. is the largest spender followed by the Department of Energy, Mines and Resources (EMR Canada) and the National Research Council. NRC is responsible for several facets of the long-term research program including fusion, wind and solar energy sources.

Spending on advancement of science, estimated at \$488 million, is the highest in an identified area, reflecting government concern for basic research and the training of highly qualified personnel. NSERC and NRC spend the largest amounts.

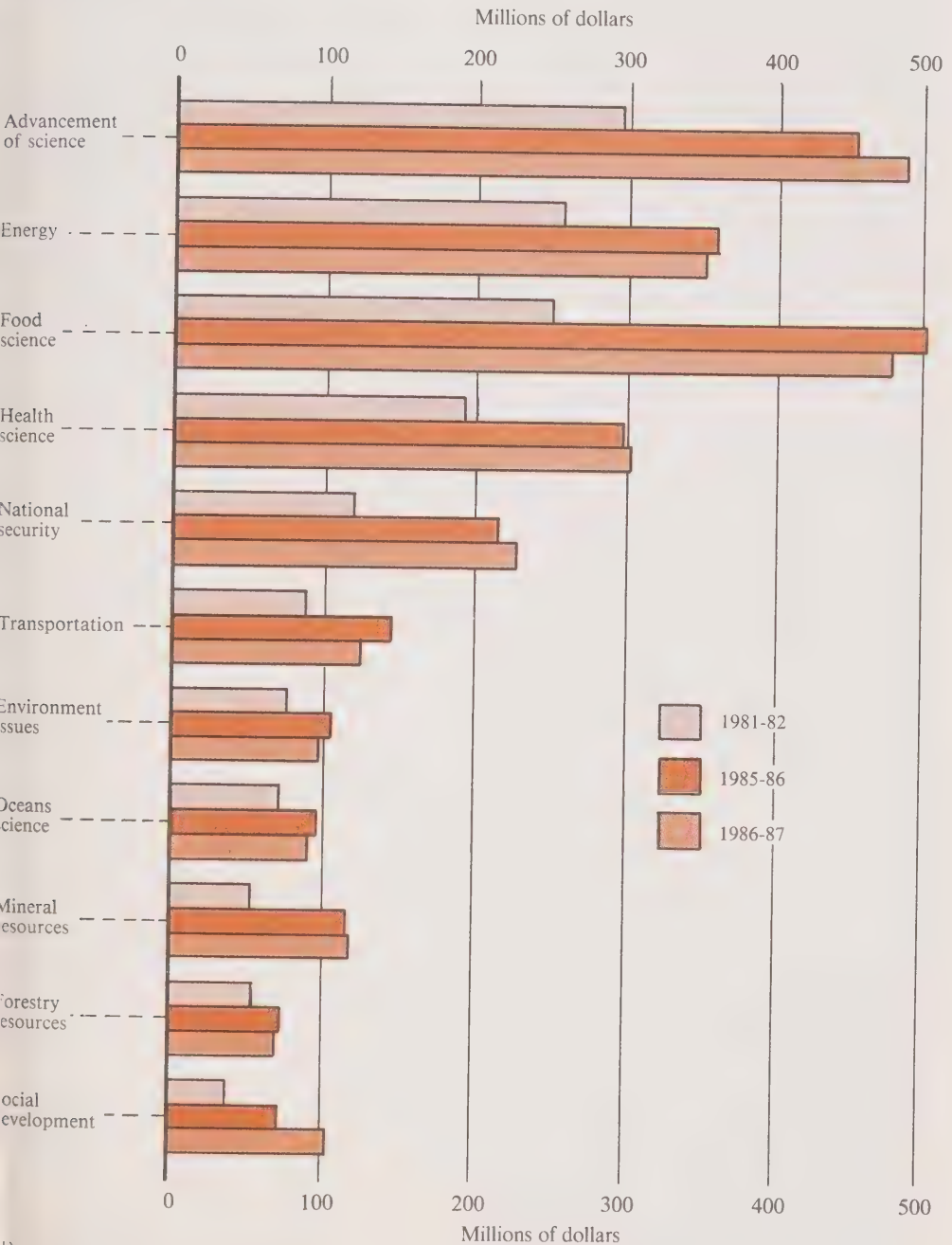
Estimated expenditures on food science, at \$480 million, form the second largest category. The departments of Agriculture and Fisheries and Oceans are the largest spenders.

Health science is another major concern with expenditures of \$301 million.

About \$268 million was to be spent on policy development S&T activities and about \$228 million on national security.

Chart 12.1

**Federal scientific expenditures, selected application areas,  
1981, 1985 and 1986<sup>(1)</sup>**



<sup>(1)</sup> Fiscal years ending March 31.



## 12.5 Federal support to industry

The government has a multi-faceted program for industrial development. This program includes direct payments to industry which take the form of contracting its S&T requirements and in supporting, through contributions, worthwhile projects required by industry. The government also aims to provide a favourable climate for the private sector through tax, tariff, trade and procurement policies. The government also assists industry by providing, on a cost-recovery basis, testing facilities maintained in government laboratories.

Government contracts for R&D requirement were estimated at \$189 million for 1986-87 with the Department of National Defence, EMR and the Department of Communications together accounting for 63% of the contracts.

Grants and contributions to industry were estimated at \$276 million for 1986-87. The Department of Regional Industrial Expansion (formerly the Department of Industry, Trade and Commerce) accounted for 55%. Its two major programs were the Defence Industry Productivity Program (DIPP) to assist high technology industry in the defence sector, and the Industrial Regional Development Program (IRDP) which came into effect in 1983 and subsumed among others the Enterprise Development Program (EDP).

NRC, through its Industrial Research Assistance Program (IRAP) and the Program of Industry/Laboratory Projects (PILP), contributes \$70 million to industry. The latter program is designed to assist companies in technology transfer from both government and university laboratories.

Payments for R&D in the natural sciences and engineering had a concentration of 28% in Ontario (excluding Ottawa) and 36% in Quebec (excluding Hull).

## 12.6 Federal support to universities

Total payments to universities were estimated at \$611 million in 1986-87 with 87% in the natural sciences and engineering and 13% in the social sciences and humanities. Most of these payments (70%) were for R&D grants made by the three university granting councils: the Natural Sciences and Engineering Research Council (NSERC), the Medical Research Council, and the Social Sciences and Humanities Research Council (SSHRC).

NSERC was the largest of these councils with a 1986-87 budget of \$326 million. Since 1981-82 NSERC's budget has grown by 61%.

The Medical Research Council budget was \$165 million for 1986-87 and the SSHRC budget was \$71 million. The Department of National Health and Welfare provided funds for a \$10 million program for health research in universities.

The bulk of the funding in the natural sciences and engineering was going to universities in Ontario (35%) and Quebec (22%).

## 12.7 Provincial research organizations

Eight provincial governments have established research councils or foundations. Their primary objectives are to provide technical support to local firms and to assist in the development of provincial natural resources. In 1985 total expenditures were estimated at approximately \$155 million with about 1,950 people employed. Although relatively small in comparison with other organizations, their impact on industries in their respective provinces is substantial. In aggregate these organizations receive about 37% of their funds as a grant from their own provincial governments. About 20% of their expenditures is derived from contract research on behalf of industry.

**The Nova Scotia Research Foundation Corp.** is a Crown provincial agency with control vested in a board of directors. Its 1985 expenditures were about \$6.3 million. The foundation performs research in fermentation and microbial technology; in chemical engineering including research on arsenic removal, methane removal, food, coal and corrosives; in ocean technology; and in marine and ground geophysics.

**The New Brunswick Research and Productivity Council**, created in 1962, had a 1985 budget of \$7.0 million. The Council's research includes: pest control and pesticide residue, fuel oil and coal, ore processes, mineral smelting, bed combustion of fossil fuels, nuclear reactors, oil rigs, and effects of chemical additives in the food industry.

**The Centre de Recherche Industrielle du Québec**, created in 1969, had a 1985 budget of \$33.4 million. The centre operates research laboratories in both Quebec City and Montreal. It works closely with small- and medium-sized businesses covering various aspects of applied sciences in the creation of new processes and products. It stresses advanced manufacturing techniques and



Chart 12.2

Percentages of the Gross Domestic Expenditure on Research and Development reported by certain sectors

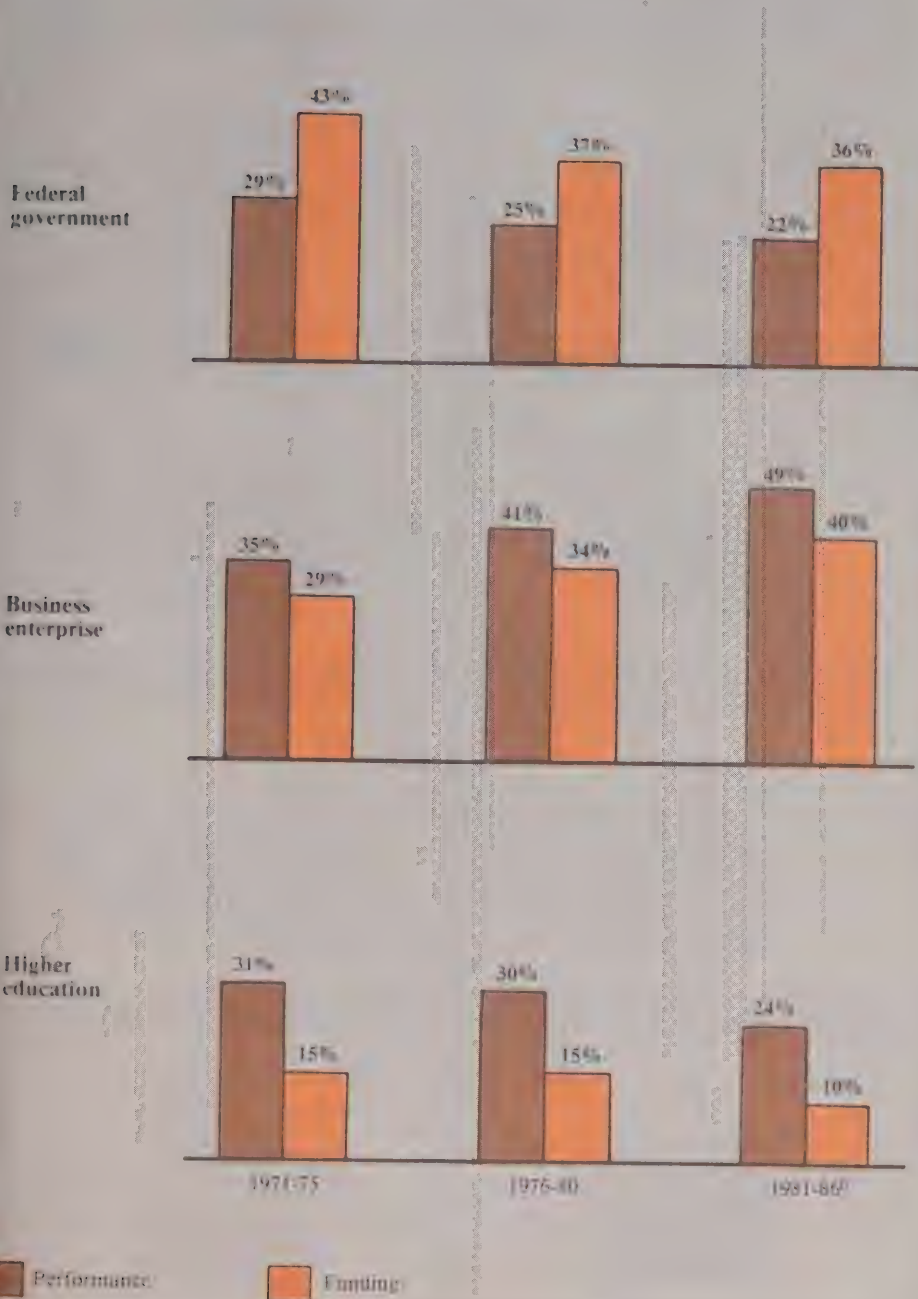
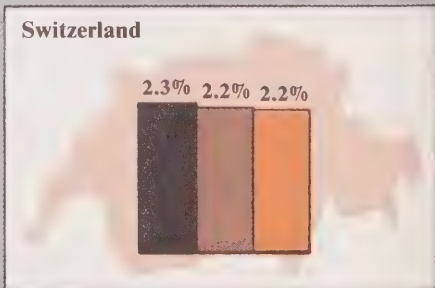
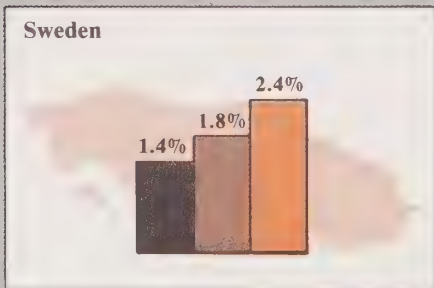
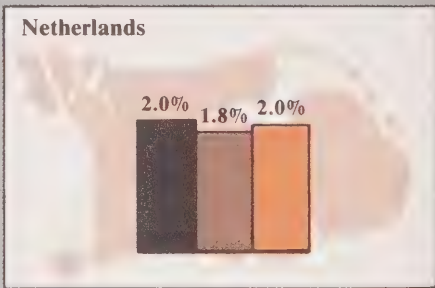
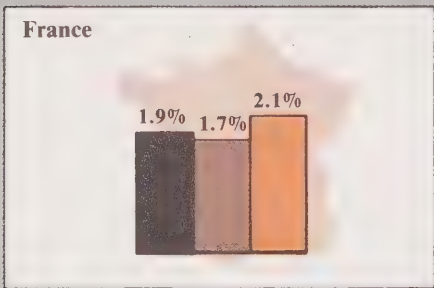
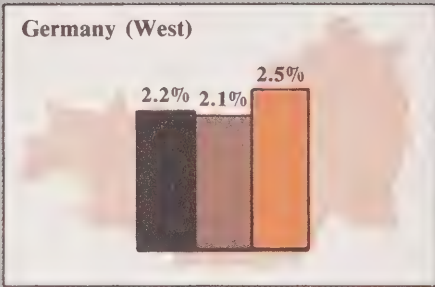
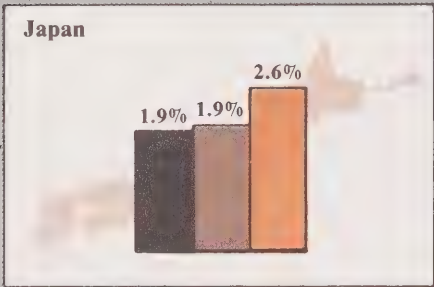
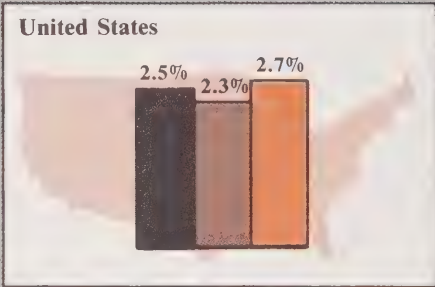
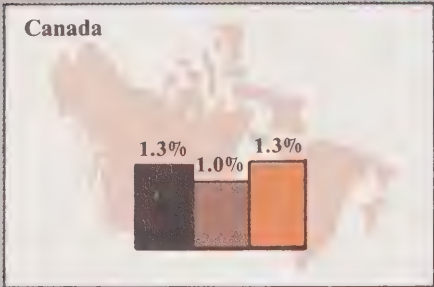


Chart 12.3  
Gross expenditures on research and development as a percentage of  
Gross Domestic Product for selected OECD countries

1971 1977 1983



is studying the applications of computer-aided design and manufacturing (CAD/CAM) and robotics.

**The Ontario Research Foundation**, established in 1928 as an independent Crown corporation, had a 1985 budget of \$27.8 million. It performs research in energy conservation and solar systems, on long-range transport of pollutants, waste treatment, building materials including fire and flammability studies, pulp and paper, microelectronics, mineral processing, hydrometallurgy, and waste utilization. It operates a centre for alternate fuel utilization and a centre for powder metallurgy.

**The Manitoba Research Council** had a budget of \$6.1 million for 1985. The Council operates a technical information service for industry, an industrial technology centre and the Canadian Food Products Development Centre. It performs research in the areas of plastics extrusion, fibreglass, atomic absorption spectroscopy, solid waste, wood stove testing, meat processing, and bacteria in milk products.

**The Saskatchewan Research Council** had a 1985 budget of \$15.3 million. The Council performs research in biomass production and refining, farm energy use, sediments, ceramics, geochemistry, computer systems, computer-aided design and computer-aided manufacturing, and applied climatology. It operates a Canadian centre to design and develop innovative instruments.

**The Alberta Research Council**, created in 1921, had a 1985 budget of \$48.7 million, making it by far the largest of the eight organizations. The Council performs research on the geology of Alberta oil-bearing sands, bitumen recovery, steam separation of hydrocarbons from sand, coal conversion, groundwater, soil salinization, microbiology, and solar and wind energy. The Council also operates an oil sands information ranch.

**BC Research** is a non-profit industrial research society with offices and laboratories in Vancouver, BC. Its activities enable even the smallest firms to improve their competitive position in Canadian and world markets by the use of up-to-date scientific knowledge. It is active in applied biology, chemistry, engineering — physics, ocean engineering, operations research, industrial engineering — and social impact and economic studies. In 1985, it had a budget of \$8.4 million.

## 12.8 National expenditures on R&D

The activity of research and development (R&D) is defined as creative work undertaken on a systematic basis to increase the stock of scientific and technical knowledge and to use this knowledge in new applications. Expenditures on R&D are an important indicator of the effort devoted to creative activity in science and technology. This effort is associated with the ability to develop new products and processes, necessary for economic and industrial growth. This is particularly true of R&D in the business enterprise sector but the level of R&D expenditures in other sectors is also useful as an indicator of Canada's contribution to world science, of the intellectual activity in Canadian institutions, and of the search for solutions to Canadian problems.

The GERD, or "gross domestic expenditure on research and development", total R&D expenditures represent all R&D performed in a country's national territory during a given year. The GERD includes R&D performed within a country and funded from abroad but excludes payments sent abroad for R&D performed by others. It is calculated by adding together the intramural expenditures reported by institutions which performed R&D, grouped into appropriate sectors and sub-sectors.

In 1986, research and development expenditures are expected to total about \$6.9 billion, a slight increase over 1985. This increase of 4.6% follows expenditure growth of 10.6% and 10.1% for 1984 and 1985.

In Table 12.10, GERD statistics are presented in two forms. Besides its value in current dollars, the GERD is compared to Gross Domestic Product (GDP) from 1971. The GERD/GDP ratio is used to show the R&D effort in proportion to total economic activity. The figures for 1985 and 1986 are estimates and may be expected to be revised.

The GERD is made up, as noted above, from data supplied by the institutions performing R&D, grouped into sectors and sub-sectors. One of the questions asked of the performers is the source of funds for the R&D they carry out. By combining the responses of the performers, a matrix can be formed of expenditures by performing and funding sectors.

A shift in activity between different sectors of the economy is apparent. The federal government has become less important both as a performer and as a source of funds, while the importance of the business sector in both areas has grown.

# TABLES

...	not available	e	estimate
---	not appropriate or not applicable	p	preliminary
---	nil or zero	r	revised
--	too small to be expressed	certain tables may not add due to rounding	

Forecast expenditures, 1985-86 and estimated expenditures, 1986-87.

## 12.1 Federal government expenditures on activities in the natural sciences, by major funding department or agency (million dollars)

Department or agency	1981-82 <sup>f</sup>	1982-83 <sup>f</sup>	1983-84	1984-85	1985-86	1986-87
Agriculture	209.5	234.5	351.6	387.3	419.5	426.3
Atomic Energy of Canada	103.4	129.6	138.0	150.3	140.1	160.8
Communications	83.5	96.7	84.2	92.3	100.8	91.4
Energy, Mines and Resources	223.3	245.3	276.8	323.1	394.1	384.9
Environment	297.2	332.9	302.1	328.1	354.1	360.7
Fisheries and Oceans	150.8	186.2	216.0	259.3	276.8	236.4
Regional Industrial Expansion <sup>1</sup>	134.4	126.9	163.2	170.8	196.6	162.8
Medical Research Council	100.4	113.5	140.7	157.0	161.7	165.2
National Defence	116.3	142.9	159.5	192.0	211.1	224.4
National Health and Welfare	68.6	72.4	81.0	87.5	88.2	93.2
National Research Council	285.5	352.4	411.5	484.5	470.8	443.2
Natural Sciences and Engineering Research Council	202.0	245.3	282.1	312.7	311.8	325.6
Transport	23.1	27.3	38.1	43.7	40.8	46.2
Other	132.1	149.0	160.4	169.0	196.8	208.0
Total	2,130.1	2,454.9	2,805.2	3,157.6	3,363.2	3,329.1

<sup>1</sup> Formed in 1981-82 from the departments of Industry, Trade and Commerce and Regional Economic Expansion.

## 12.2 Federal government expenditures on activities in the social sciences, by department or agency (million dollars)

Department or agency	1981-82 <sup>f</sup>	1982-83 <sup>f</sup>	1983-84	1984-85	1985-86	1986-87
Canada Mortgage and Housing Corporation	11.0	11.3	11.6	11.6	17.5	18.7
Employment and Immigration	19.3	21.2	22.2	23.9	26.8	29.7
Energy, Mines and Resources	8.9	11.2	11.9	14.8	27.7	32.2
Environment	12.1	12.4	13.7	13.8	15.1	15.7
Finance	11.6	14.2	18.9	18.3	19.8	21.1
International Development Research Centre	21.3	27.1	31.0	38.7	41.3	41.1
National Health and Welfare	17.9	21.7	28.9	30.8	32.8	32.2
National Library	28.8	34.0	36.8	37.5	41.4	41.1
National Museums	43.1	46.8	51.5	54.8	56.5	71.1
Public Archives	16.3	17.6	20.6	21.2	20.8	22.2
Science and Technology	8.5	9.3	10.1	5.8	11.1	11.1
Secretary of State	11.4	10.5	7.1	15.4	10.4	8.1
Social Sciences and Humanities Research Council	46.9	56.8	60.5	63.2	64.1	70.1
Statistics Canada	246.9	208.2	229.7	249.2	267.7	349.1
Treasury Board	14.9	17.7	19.6	20.6	21.5	21.1
Other	94.5	108.7	115.1	108.9	108.5	107.1
Total	613.4	628.7	689.2	728.5	783.0	894.1



**12.3 Federal expenditures on natural sciences R&D and RSA, by performer (million dollars)**

Performer	1981-82 <sup>1</sup>		1982-83 <sup>1</sup>		1983-84		1984-85		1985-86		1986-87	
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
<b>R&amp;D</b>												
Intramural <sup>1</sup>	865.3	55.2	1,041.9	57.4	1,171.0	56.0	1,337.4	56.9	1,389.0	55.4	1,367.9	55.9
Industry	282.2	18.0	312.7	17.2	373.7	17.9	416.4	17.7	499.2	19.9	464.7	19.0
Universities	312.7	19.9	369.2	20.3	427.2	20.4	469.2	20.0	476.8	19.0	481.5	19.7
Non-profit institutions	5.9	0.4	6.4	0.4	18.0	0.9	11.7	0.5	11.8	0.5	11.4	0.5
Provincial and municipal	33.0	2.1	2.7	0.2	3.5	0.2	12.6	0.5	9.8	0.4	9.3	0.4
Foreign	55.5	3.5	68.7	3.8	79.5	3.8	86.5	3.7	104.6	4.2	99.2	4.0
Other Canadian	13.8	0.9	13.2	0.7	17.8	0.8	17.2	0.7	15.9	0.6	12.7	0.5
<b>Total</b>	<b>1,568.4</b>	<b>100.0</b>	<b>1,814.8</b>	<b>100.0</b>	<b>2,090.7</b>	<b>100.0</b>	<b>2,351.0</b>	<b>100.0</b>	<b>2,507.1</b>	<b>100.0</b>	<b>2,446.7</b>	<b>100.0</b>
<b>RSA</b>												
Intramural <sup>1</sup>	445.1	79.1	505.8	79.0	561.6	78.6	639.8	79.3	696.1	81.3	698.4	79.2
Industry	73.8	13.1	72.0	11.2	63.3	8.9	81.3	10.1	83.4	9.7	100.3	11.4
Universities	25.9	4.6	31.4	4.9	39.8	5.6	44.5	5.5	47.3	5.5	48.1	5.5
Non-profit institutions	2.9	0.5	4.3	0.7	7.4	1.0	6.9	0.9	3.0	0.4	4.0	0.4
Provincial and municipal	5.5	1.0	16.3	2.6	30.8	4.3	18.2	2.3	9.3	1.1	11.9	1.3
Foreign	3.8	0.7	5.3	0.8	5.9	0.8	7.6	0.9	11.1	1.3	12.2	1.4
Other Canadian	5.6	1.0	5.0	0.8	5.7	0.8	8.2	1.0	5.9	0.7	7.4	0.8
<b>Total</b>	<b>562.6</b>	<b>100.0</b>	<b>640.1</b>	<b>100.0</b>	<b>714.5</b>	<b>100.0</b>	<b>806.5</b>	<b>100.0</b>	<b>856.1</b>	<b>100.0</b>	<b>882.3</b>	<b>100.0</b>

<sup>1</sup> Intramural expenditures include non-program costs.**12.4 Federal expenditures on social sciences R&D and RSA, by performer (million dollars)**

Performer	1981-82		1982-83		1983-84		1984-85		1985-86		1986-87	
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
<b>R&amp;D</b>												
Intramural <sup>1</sup>	46.8	42.5	52.4	42.2	53.4	40.7	57.5	37.4	62.1	37.3	64.7	36.5
Industry	4.6	4.2	6.7	5.4	6.1	4.6	5.3	3.4	6.2	3.7	4.9	2.8
Universities	34.2	31.0	41.9	33.7	45.0	34.3	56.4	36.7	52.7	31.7	55.2	31.1
Non-profit institutions	5.4	4.9	4.6	3.7	5.6	4.3	9.2	6.0	8.9	5.4	10.4	5.9
Provincial and municipal	3.7	3.4	1.3	1.0	1.0	0.8	2.1	1.4	12.6	7.6	17.0	9.6
Foreign	11.4	10.3	13.6	10.9	14.7	11.2	17.9	11.7	18.5	11.1	19.8	11.2
Other Canadian	4.1	3.7	3.9	3.1	5.4	4.1	5.2	3.4	5.3	3.2	5.2	2.9
<b>Total</b>	<b>110.2</b>	<b>100.0</b>	<b>124.3</b>	<b>100.0</b>	<b>131.2</b>	<b>100.0</b>	<b>153.6</b>	<b>100.0</b>	<b>166.3</b>	<b>100.0</b>	<b>177.2</b>	<b>100.0</b>
<b>RSA</b>												
Intramural <sup>1</sup>	455.8	90.6	447.7	88.8	502.0	90.0	507.6	88.3	549.2	89.0	647.4	90.4
Industry	8.6	1.7	11.4	2.3	8.6	1.5	11.9	2.1	12.1	2.0	12.4	1.7
Universities	16.0	3.2	18.8	3.7	19.8	3.5	23.2	4.0	23.6	3.8	26.2	3.7
Non-profit institutions	5.9	1.2	8.0	1.6	8.9	1.6	9.2	1.6	11.6	1.9	9.6	1.3
Provincial and municipal	6.1	1.2	7.3	1.4	6.6	1.2	10.5	1.8	6.7	1.1	7.5	1.0
Foreign	6.1	1.2	6.9	1.4	7.1	1.3	8.4	1.5	8.7	1.4	8.5	1.2
Other Canadian	4.7	0.9	4.3	0.8	5.0	0.9	4.1	0.7	4.9	0.8	5.2	0.7
<b>Total</b>	<b>503.2</b>	<b>100.0</b>	<b>504.4</b>	<b>100.0</b>	<b>558.0</b>	<b>100.0</b>	<b>574.9</b>	<b>100.0</b>	<b>616.8</b>	<b>100.0</b>	<b>716.8</b>	<b>100.0</b>

<sup>1</sup> Intramural expenditures include non-program costs.

**12.5 Federal scientific expenditures by application area (million dollars)**

Area and department or agency	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Advancement of science						
National Research Council	65.9	82.9	94.9	94.2	101.2	112.9
Natural Sciences and Engineering Research Council	179.6	217.8	252.2	278.6	277.6	289.2
Social Sciences and Humanities Research Council	46.6	56.4	60.0	62.9	63.7	70.0
Others	2.8	1.7	2.0	5.4	10.9	15.4
Total	294.9	358.8	409.1	441.1	453.4	487.5
Communications						
Communications	41.6	47.8	44.5	71.4	74.4	55.6
National Research Council	3.1	4.4	4.2	—	—	—
Natural Sciences and Engineering Research Council	2.9	3.6	3.6	5.5	5.9	5.6
Supply and Services (unsolicited proposals)	1.8	4.0	3.0	3.4	2.3	3.0
Others	5.2	6.2	6.4	7.8	9.7	6.6
Total	54.6	66.0	61.7	88.1	92.3	70.8
Developing nations						
Canadian International Development Agency	41.7	48.4	54.2	49.3	53.6	71.2
International Development Research Centre	45.9	53.6	61.3	75.7	80.7	82.3
Others	—	—	—	0.2	0.2	—
Total	87.6	102.0	115.5	125.2	134.5	153.5
Energy						
Energy, Mines and Resources	94.4	84.3	138.3	121.2	139.9	138.5
Atomic Energy of Canada Ltd.	91.9	122.5	132.3	143.0	132.1	152.3
Environment	10.2	8.5	12.4	5.1	5.4	5.9
Fisheries and Oceans	1.3	3.5	6.5	13.8	11.0	10.2
Regional Industrial Expansion	0.6	2.7	3.0	—	—	—
National Research Council	39.6	56.8	77.9	65.7	42.4	18.4
Natural Sciences and Engineering Research Council	6.7	7.6	8.1	5.0	3.8	4.2
Public Works	4.6	3.5	3.8	3.2	2.4	2.5
Transport	1.3	5.8	10.8	9.2	6.9	6.3
Others	6.1	9.5	15.8	14.0	14.9	13.0
Total	256.7	304.7	408.9	380.2	358.8	351.3
Environment issues						
Energy, Mines and Resources	4.5	5.3	5.7	5.7	7.5	8.8
Environment	43.6	46.0	52.0	53.8	56.7	55.8
Fisheries and Oceans	14.2	14.6	15.5	18.7	22.3	19.6
National Research Council	5.4	7.0	7.3	6.1	8.3	5.8
Natural Sciences and Engineering Research Council	3.1	3.5	3.2	2.8	2.8	2.9
Others	5.7	4.9	4.7	4.0	6.5	5.3
Total	76.5	81.3	88.4	91.1	104.1	98.2
Food science						
Agriculture	159.5	175.0	199.2	280.2	307.5	300.9
Fisheries and Oceans	58.5	82.1	92.3	113.8	133.3	118.5
National Research Council	13.3	19.6	26.8	38.6	40.4	34.9
Natural Sciences and Engineering Research Council	4.1	3.5	4.4	5.0	5.2	5.5
Statistics Canada	9.0	6.1	4.6	9.1	10.0	14.4
Others	4.9	4.9	5.1	5.7	6.8	5.4
Total	249.3	291.2	332.4	452.4	503.2	479.6
Health science						
Energy, Mines and Resources	1.1	1.1	1.4	1.1	2.9	2.3
Atomic Energy of Canada Ltd.	5.6	7.1	7.1	7.3	8.0	8.5
National Health and Welfare	65.9	69.3	78.5	86.5	87.7	92.3
Medical Research Council	100.2	113.3	140.8	156.8	161.4	164.9
National Research Council	14.4	17.4	21.7	24.6	32.2	27.9
Statistics Canada	5.1	5.2	5.2	3.9	4.0	4.2
Others	0.1	0.4	0.5	2.1	1.3	1.0
Total	192.4	213.8	255.2	282.3	297.5	301.1

## 12.5 Federal scientific expenditures by application area (million dollars) (continued)

Area and department or agency	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Oceans science						
Energy, Mines and Resources	5.9	9.4	6.6	13.1	15.0	16.7
Environment						
Atmospheric Environment Service	11.9	13.7	16.5	19.9	27.4	28.0
Fisheries and Oceans	45.2	38.5	50.1	47.3	47.8	41.3
National Research Council	5.3	2.8	3.8	—	—	—
Natural Sciences and Engineering						
Research Council	2.7	3.3	2.9	3.1	2.9	2.6
Regional Economic Expansion	0.1	—	—	—	—	—
Others	1.0	2.5	7.2	1.7	2.4	1.9
Total	72.1	70.2	87.1	85.1	95.5	90.5
Policy development						
Economic Council of Canada	7.6	7.6	8.1	8.3	8.6	8.8
Energy, Mines and Resources			1.2	—	—	—
Statistics Canada	197.2	166.1	178.4	174.5	180.0	212.1
Others	41.3	49.2	68.3	41.9	47.1	46.6
Total	246.1	222.9	256.0	224.7	235.7	267.5
Water resources						
Environment	17.1	19.5	21.4	23.0	25.2	24.4
Others	1.4	1.4	2.3	1.5	2.2	1.9
Total	18.5	20.9	23.7	24.5	27.4	26.3
Forestry resources						
Agriculture						
Canadian Forest Service	52.0	48.5	54.8	66.6	72.8	69.9
Others	0.5	1.3	1.0	0.7	1.5	0.4
Total	52.5	49.8	55.8	67.3	74.3	70.3
Mineral resources						
Energy, Mines and Resources	50.3	58.9	67.8	82.8	112.8	119.2
Others	1.8	0.1	0.9	0.8	2.8	0.7
Total	52.1	59.0	68.7	83.6	115.6	119.9
Other resources						
Agriculture	13.2	19.1	34.6	—	—	—
Energy, Mines and Resources	1.9	10.8	12.1	12.6	13.5	15.1
Environment	12.0	13.7	15.1	16.0	17.5	17.0
Others	1.1	1.1	0.3	0.3	0.6	0.2
Total	28.2	44.7	62.1	28.9	31.6	32.3
Domestic security						
Justice	3.9	4.1	4.5	4.4	4.3	4.8
Law Reform Commission	2.4	2.6	3.7	3.2	3.3	3.0
National Research Council	11.2	4.0	9.1	11.2	4.0	9.1
Solicitor General	9.7	9.6	8.5	13.6	13.1	12.7
Others	2.5	2.9	3.1	0.2	0.8	0.7
Total	29.7	23.2	28.9	32.6	25.5	30.3
National security						
Energy, Mines and Resources	0.9	1.2	1.5	1.8	2.2	2.0
National Defence	117.7	143.9	151.9	193.3	212.4	225.8
Others	0.8	0.1	0.2	0.2	0.3	0.2
Total	119.4	145.2	153.6	195.3	214.9	228.0
Social development						
Canada Employment and Immigration						
Commission	9.3	8.1	9.1	9.8	6.8	7.7
Employment and Immigration	9.6	12.5	12.8	13.8	19.6	20.8
Indian and Northern Development	0.4	—	—	—	—	—
Labour	4.2	3.8	4.4	4.5	4.7	3.1
National Health and Welfare	7.7	8.1	9.4	12.5	13.1	12.4
National Research Council	—	—	—	—	—	—
Statistics Canada	3.8	4.1	5.2	17.5	24.6	57.4
Others	1.3	1.7	1.8	2.1	2.7	2.3
Total	36.3	38.3	42.7	60.2	71.5	103.7

**12.5 Federal scientific expenditures by application area (million dollars) (concluded)**

Area and department or agency	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Space science and satellite technology						
Communications	45.7	52.0	64.8	20.7	25.6	34.1
Environment	2.3	5.1	5.5	4.2	5.6	5.8
National Research Council	17.4	17.8	24.2	33.2	34.1	20.8
Others	2.3	2.0	2.5	2.5	3.3	3.0
<b>Total</b>	<b>67.7</b>	<b>76.9</b>	<b>97.0</b>	<b>60.6</b>	<b>68.6</b>	<b>63.7</b>
Transportation						
Energy, Mines and Resources	0.8	2.1	2.1	2.0	1.7	1.4
Fisheries and Oceans	31.2	46.8	43.8	65.1	62.0	47.3
National Research Council	26.2	34.0	48.5	42.3	37.2	27.1
Transport Canada	21.7	20.8	24.8	33.2	32.9	38.1
Canada Transport Commission	2.7	3.2	3.4	3.4	3.3	3.3
Statistics Canada	3.1	3.2	3.6	4.3	4.4	4.7
Others	1.5	0.7	0.8	1.4	2.7	1.6
<b>Total</b>	<b>87.2</b>	<b>110.8</b>	<b>127.0</b>	<b>151.7</b>	<b>144.2</b>	<b>123.5</b>
Other						
Energy, Mines and Resources	47.5	54.0	54.4	61.4	82.2	67.3
Environment	127.5	154.4	169.6	190.1	199.9	205.1
Regional Industrial Expansion	131.1	122.0	165.1	172.1	199.3	165.9
National Research Council	88.0	101.5	139.6	163.7	165.7	158.3
Natural Sciences and Engineering Research Council	2.6	5.4	7.0	12.0	13.0	14.5
Others	181.5	181.5	204.1	211.0	223.2	234.2
<b>Total</b>	<b>578.2</b>	<b>618.8</b>	<b>739.8</b>	<b>810.3</b>	<b>883.3</b>	<b>845.3</b>

**12.6 Federal employees engaged in R&D and RSA in the natural sciences, by major department or agency (person years)**

Department or agency	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
<b>R&amp;D</b>						
Agriculture	3,887	3,916	4,804	4,727	4,658	4,624
Atomic Energy of Canada Ltd.	2,340	2,451	2,500	2,484	2,401	2,451
Communications	575	639	510	559	604	569
Energy, Mines and Resources	1,381	1,468	1,530	1,655	1,656	1,648
Environment	1,616	1,632	849	867	812	814
Fisheries and Oceans	1,384	1,486	1,502	1,533	1,528	1,536
National Defence	1,795	1,776	1,805	1,782	1,780	1,773
National Health and Welfare	227	188	202	181	184	181
National Research Council	2,435	2,715	2,762	2,841	2,769	2,723
Other	112	141	124	130	120	122
<b>Total</b>	<b>15,752</b>	<b>16,412</b>	<b>16,588</b>	<b>16,759</b>	<b>16,512</b>	<b>16,441</b>
<b>RSA</b>						
Agriculture	219	218	770	709	699	712
Atomic Energy of Canada Ltd.	146	156	165	165	161	152
Energy, Mines and Resources	845	872	899	804	876	865
Environment	2,974	2,966	2,834	2,906	2,797	2,800
Fisheries and Oceans	1,042	1,027	1,004	1,070	1,067	1,067
National Defence	30	29	33	32	30	30
National Health and Welfare	852	975	994	1,033	1,045	1,041
National Research Council	607	499	510	515	521	504
Other	823	776	711	716	674	672
<b>Total</b>	<b>7,538</b>	<b>7,518</b>	<b>7,920</b>	<b>7,950</b>	<b>7,870</b>	<b>7,843</b>



### 12.7 Federal employees engaged in R&D and RSA in the social sciences, by major department or agency (person years)

Department or agency	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
<b>R&amp;D</b>						
Canada Employment and Immigration Commission	—	—	—	—	16.0	49.0
Economic Council of Canada	119.0	116.0	114.0	113.0	112.0	109.0
Employment and Immigration	20.0	20.0	19.0	21.0	20.0	20.0
Environment	18.0	18.0	18.0	19.0	20.0	20.0
Finance	—	—	—	—	—	—
Energy, Mines and Resources	—	—	—	—	—	—
International Development	—	—	—	—	—	—
Research Centre	—	—	—	—	—	—
National Health and Welfare	27.7	18.0	23.0	21.0	21.0	20.0
National Library	—	—	—	—	—	—
National Museums	60.0	60.0	52.0	60.0	60.0	67.0
Public Archives	—	—	—	—	—	—
Secretary of State	141.0	116.0	47.0	50.0	47.0	48.0
Statistics Canada	123.0	133.0	146.0	154.0	149.0	146.0
Treasury Board	—	—	—	—	—	—
Other	332.6	276.2	224.0	215.0	226.0	196.0
<b>Total</b>	<b>841.3</b>	<b>757.2</b>	<b>643.0</b>	<b>653.0</b>	<b>671.0</b>	<b>675.0</b>
<b>RSA</b>						
Canada Employment and Immigration Commission	—	—	—	—	—	—
Economic Council of Canada	147.0	163.0	168.0	171.0	181.0	162.0
Employment and Immigration	24.0	22.0	21.0	20.0	21.0	19.0
Environment	293.0	307.0	159.0	171.0	185.0	185.0
Finance	218.7	218.0	218.0	215.0	210.0	211.0
Energy, Mines and Resources	217.3	246.5	268.0	277.0	299.0	279.0
International Development	105.0	134.0	134.0	169.0	165.0	167.0
Research Centre	62.1	60.5	64.0	62.0	62.0	60.0
National Health and Welfare	115.8	132.1	176.0	162.0	163.0	162.0
National Library	517.0	542.0	541.0	526.0	549.0	512.0
National Museums	588.0	592.0	647.0	660.0	614.0	635.0
Public Archives	279.0	281.0	282.0	293.0	295.0	293.0
Secretary of State	45.0	72.0	19.0	19.0	16.0	17.0
Statistics Canada	5,366.0	4,607.0	4,505.0	4,442.0	4,439.0	4,231.0
Treasury Board	232.0	238.0	242.0	238.0	236.0	229.0
Other	1,298.4	1,100.6	1,320.0	1,010.0	1,017.0	986.0
<b>Total</b>	<b>9,508.3</b>	<b>8,715.7</b>	<b>8,764.0</b>	<b>8,435.0</b>	<b>8,452.0</b>	<b>8,148.0</b>

### 12.8 Expenditures of provincial research organizations, 1981-85 (million dollars)

Organization	1981	1982	1983	1984	1985
British Columbia Research Council	8.1	8.3	8.0	8.5	8.4
Alberta Research Council	29.8	34.7	41.2	41.9	48.7
Saskatchewan Research Council	10.3	10.2	9.5	10.9	15.3
Manitoba Research Council	2.9	4.6	5.3	5.9	6.1
Ontario Research Foundation	22.3	19.8	20.3	20.9	27.8
Centre de recherche industrielle du Québec	13.9	15.4	18.5	24.9	33.4
New Brunswick Research and Productivity Council	4.3	5.2	5.0	5.9	7.0
Nova Scotia Research Foundation	4.0	5.4	5.4	6.2	6.3
<b>Total</b>	<b>95.6</b>	<b>103.6</b>	<b>113.2</b>	<b>125.1</b>	<b>153.0</b>

### 12.9 Current expenditures of provincial research organizations, by scientific activity, 1984 and 1985 (thousand dollars)

Year and provincial research organization	Scientific research	Development	Resource surveys	Analysis and testing	Industrial engineering	Other <sup>1</sup>	Total
<b>1984</b>							
Nova Scotia	766	2,003	530	707	353	1,532	5,891
New Brunswick	966	751	—	1,717	858	1,074	5,366
Quebec	2,508	6,784	—	3,991	380	5,340	19,003
Ontario	4,337	8,674	—	7,373	217	1,085	21,686
Manitoba	48	2,073	—	—	397	2,259	4,777
Saskatchewan	2,663	856	1,142	1,142	2,188	1,522	9,513
Alberta	5,300	17,668	3,534	2,120	1,413	5,301	35,336
British Columbia	3,404	178	—	770	252	3,619	8,223
<b>Total</b>	<b>19,992</b>	<b>38,987</b>	<b>5,206</b>	<b>17,820</b>	<b>6,058</b>	<b>21,732</b>	<b>109,795</b>
<b>1985</b>							
Nova Scotia	615	2,152	369	922	369	1,721	6,148
New Brunswick	1,534	800	67	1,667	667	1,934	6,669
Quebec	3,706	9,064	—	4,131	472	6,231	23,604
Ontario	5,074	10,149	—	8,626	254	1,268	25,371
Manitoba	204	2,201	99	990	110	1,898	5,502
Saskatchewan	3,505	1,122	1,542	1,262	3,775	2,817	14,023
Alberta	4,982	16,863	3,449	6,898	1,150	4,982	38,324
British Columbia	1,853	427	—	974	234	4,635	8,123
<b>Total</b>	<b>21,473</b>	<b>42,778</b>	<b>5,526</b>	<b>25,470</b>	<b>7,031</b>	<b>25,486</b>	<b>127,764</b>

<sup>1</sup> In 1984: feasibility studies, \$4.6 million; library and technical information, \$9.3 million; industrial innovation, \$7.4 million; and other, \$458,000.  
In 1985: feasibility studies, \$4.8 million; library and technical information, \$10.4 million; industrial innovation, \$7.5 million; and other, \$2.8 million.

### 12.10 Gross domestic expenditures on R&D in current dollars and in percentage of the gross domestic product, 1971-86

Year	GERD \$'000,000	GDP \$'000,000	GERD/GDP %
1971	1,287	97,290	1.32
1972	1,357	108,629	1.25
1973	1,455	127,372	1.14
1974	1,671	152,111	1.10
1975	1,882	171,540	1.10
1976	2,050	197,924	1.04
1977	2,299	217,879	1.06
1978	2,590	241,604	1.07
1979	3,006	276,096	1.09
1980	4,344	309,891	1.40
1981	3,946	355,994	1.11
1982	5,101	374,750	1.36
1983	5,420	405,425	1.34
1984	5,966	443,327	1.35
1985 <sup>p</sup>	6,597	476,361	1.38
1986 <sup>p</sup>	6,901	509,000	1.36

#### Source

12.1 - 12.10 Science, Technology and Capital Stock Division, Statistics Canada.

CHAPTER 13

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# TRANSPORTATION

## **CHAPTER 13**

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### **TRANSPORTATION**

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## THEN



In 1923 Canada ranked third among the countries of the world in the number of its registered motor vehicles, behind the United States and the United Kingdom. There was one motor vehicle for every 15.6 of Canada's population, or one for every 3.39 families. (1924)

"The first railway in Canada was opened on the 21st July, 1836, between Laprairie and St. Johns, in the Province of Quebec, its length being 16 miles, but such little progress in railway development was

made that in 1850 there were but 71 miles in operation. In that year, however, several important undertakings were commenced, among which were the Grand Trunk, Great Western and Northern Railroads, and in 1860, ten years later, there were 2,087 miles in operation." (1886)



## NOW

In 1985, 53% of all domestic scheduled passengers travelled on discount fares, compared to 45% in 1983.

Preliminary data for 1985 show that VIA passengers numbered 7.0 million, up 3.6% from 1984. In 1984, commuters accounted for 14.6 million passengers or 66.8%.

The Canadian intercity bus industry carried about 28 million passengers in 1984.

The St. Lawrence Seaway is the world's longest canal system, measuring 3760 km from the Atlantic Ocean to the western end of Lake Superior. A vessel rises 177 m as it moves from the lower St. Lawrence River to the lakehead.

## CHAPTER 13

# TRANSPORTATION

Transportation is a vital element in the social and economic structure of Canada. Although the country is second-largest in physical size in the world it is only 28th in population size. Most of the population is concentrated near the southern border, therefore, transportation routes are almost entirely linear. Establishment of the more economic circular routes common in the United States is possible only on a regional basis in Canada. Nevertheless, good transportation services and facilities must be provided to remote areas including the Arctic.

Development of efficient transportation systems in Canada is further hampered by problems inherent in geography and climate. Vast areas of muskeg north of Lake Superior, the rocky terrain of the Precambrian Shield and the paucity of passes through the Rocky Mountains pose difficult problems for the builders of railways and highways. The frequent temperature changes from severe cold to thaw which are characteristic of Canadian winters break up road surfaces prematurely. Removal of snow, not only from roads but also from airport runways and railway and subway tracks, is a costly winter necessity.

### 13.1 Regulation and co-ordination

Regulation and control of transportation is under the jurisdiction of Transport Canada, the Canadian Transport Commission (CTC) and their provincial counterparts. In general, Transport Canada co-ordinates transportation activities under federal jurisdiction, sets safety standards, provides infrastructure and controls navigation. The CTC licenses and regulates commercial carriers. Both monitor and develop aspects of national transportation policy. Since their roles vary from mode to mode, their powers are described under each mode.

#### 13.1.1 Rail

Under the Railway Act, the CTC, through its railway transport committee, has jurisdiction over construction, maintenance and operation

of railways that are subject to the legislative authority of Parliament. In general all railways operating in more than one province or territory, and US railroads extending into Canada, are under federal jurisdiction. Matters regulated by the CTC include location of lines, crossings and crossing protection, safety of train operation, operating rules, investigation of accidents, accommodation for traffic and facilities for service, abandonment of lines and uniformity of railway accounting.

Transport Canada is involved in the provision and support of rail passenger and freight services. The department provides funding and policy direction to VIA Rail Canada Inc. which operates intercity passenger services over Canadian National and Canadian Pacific lines. Involvement in freight services is concentrated on grain transportation, through the provision of hopper cars and terminal facilities, and the rehabilitation of prairie branch lines.

#### 13.1.2 Air

Under the Aeronautics Act, the CTC, through its air transport committee, is responsible for the economic regulation of commercial air services in Canada and abroad and of foreign air services operating into and out of Canada, and participates in bilateral negotiations for the exchange of traffic rights. Regulations deal with classification of carriers and services, licences, tariffs, service schedules, routes and base of operations, and statistical reporting.

The technical side of civil aviation under the Aeronautics Act deals with such matters as aircraft registration, licensing of personnel, establishment and maintenance of airports and air navigation facilities, air traffic control, accident investigation and the safe operation of aircraft. This technical side of civil aviation was administered by the Canadian Air Transport Administration (CATA) of Transport Canada until the beginning of 1986 when Transport Canada underwent reorganization. At that time, CATA was split into two groups, designated as the aviation group and the airports authority group.

The aviation group has assumed a part of this responsibility, specifically working to maintain all air traffic control services and aviation regulation. The latter covers licensing and certification, legislation and enforcement, medicine (matters related to the health and security of air travellers) as well as international technical liaison. The aviation group also provides flight services for Transport Canada's aircraft fleet and the aviation activity statistics and forecasts needed for the planning and management of the air transportation program.

The other half of CATA's duties has been assumed by the airports authority group in management of Canada's airport system, by maintaining Transport Canada's owned and/or operated airports. In this regard, it supervises a broad spectrum of activity, ranging from the supervision of airport concessions and security to airport construction, engineering, building and runway maintenance and overall marketing activities.

Another key body concerned with civil aviation safety is the Canadian Aviation Safety Board (CASB). Established in 1984 with the passage of the Act of the same name, its purpose is to improve aviation safety in Canada. The CASB operates independently of any government department and reports directly to Parliament.

Because of Canada's position in aviation and its geographical location, co-operation with other nations engaged in international civil aviation is essential. Canada therefore played a major part in the establishment of the International Civil Aviation Organization with headquarters in Montreal and it continues to play an active role within this organization.

### 13.1.3 Road transport

Transport Canada administers the Motor Vehicle Safety Act and the Motor Vehicle Tire Safety Act to ensure that new motor vehicles at point of manufacture in Canada or imported into Canada, and certain motor vehicle tires, meet minimum safety standards. Safety and environmental protection standards refer to design, construction and functioning of new motor vehicles. They apply to passenger cars, trucks, buses, motorcycles, minibikes, trailers and snowmobiles. Some standards limit motor vehicle exhaust evaporation and noise emissions. The standards are reviewed and revised regularly to keep pace with engineering or technical advances.

The safety of vehicles in use is a provincial responsibility. Each province has enacted safety

responsibility legislation. In general, laws provide for the automatic suspension of the driver's licence and motor vehicle registration of a person convicted of a serious offence (impaired driving, driving under suspension, dangerous driving) or a person whose uninsured vehicle is involved directly or indirectly in an accident resulting in damage of a specific amount, or injury to or death of any person.

Motor vehicles and trailers are usually registered annually with the payment of specific fees and are required to carry registration plates. In some provinces, multi-year licence plates are issued and validated annually by stickers.

Although the CTC, through its motor vehicle transport committee, has the authority to regulate interprovincial and international for-hire trucking, that power is presently delegated to the provinces. Under their own legislation, the provinces may regulate intraprovincial for-hire trucking.

### 13.1.4 Water transport

The Canada Shipping Act is the most significant statute dealing with shipping. Other legislative measures include the Pilotage Act, the Arctic Waters Pollution Act and the Navigable Waters Protection Act. Under these acts and their amendments, the federal government has complete responsibility for controlling shipping in Canadian waters.

Through its water transport committee, the CTC administers a variety of acts and regulations. As provided by the Transport Act, the CTC grants licences for ships to transport goods and passengers between ports or places in Canada on the Great Lakes, on the St. Lawrence River and Mackenzie River, and in the Western Arctic. The CTC, under the Pilotage Act, is empowered to investigate objections to proposed tariffs of pilotage charges, to hold public hearings, and to make recommendations to the appropriate pilotage authority. Under the Shipping Conference Exemption Act, ocean carriers which are members of a shipping conference have been required to file with the CTC copies of their agreements, arrangements, contracts, patronage contracts and tariffs. The CTC is also authorized, under the St. Lawrence Seaway Authority Act, to consider any complaint of unjust discrimination in an existing tariff and to report its findings to the authority. The CTC also administers the issuance of waivers permitting foreign ships to operate revenue services between Canadian ports.

Transport Canada's Canadian Marine Transportation Administration (CMTA) co-ordinates



the functions of the Canadian Coast Guard, the Canada Ports Corp., a harbours and ports directorate, four pilotage authorities, the St. Lawrence Seaway Authority, the Canarctic Shipping Company Ltd. and the Northern Transportation Co. Ltd. The CMTA has responsibility for ports, public harbours and government wharves. Canada Ports Corp., a Crown corporation established in 1983 and known as Ports Canada, is responsible for the administration of 15 ports. Local port corporations have been created for the five ports of Vancouver, Prince Rupert, Montreal, Quebec City and Halifax. Ports Canada is responsible for ensuring that the ongoing maintenance, upgrading and major expansions to port facilities will provide enhanced services to port users on a competitive and cost-effective basis. Under a new national ports policy, Ports Canada is expected to set up a framework for broader regional participation in the overall planning and development of the ports.

Within CMTA, the harbours and ports directorate consists of 366 small transportation port facilities which handle some 20% of Canada's waterborne traffic. The directorate also assumes ministerial responsibilities for the nine harbour commissions of Port Alberni, Nanaimo, Fraser River, North Fraser, Lakehead, Windsor, Hamilton, Toronto and Oshawa. Many of the government wharves for which CMTA is responsible are located in public harbours and are used for commercial traffic including auto, truck and passenger ferries.

**The Canadian Coast Guard**, part of CMTA, is primarily responsible for safety at sea. It must ensure that ships can navigate safely in Canadian waters, that all Canadian ships and ships voyaging in Canadian waters are in seaworthy condition, and that appropriate control is maintained over ships operating in Canadian waters. To achieve these goals, the Coast Guard has legal powers established mainly through the Canada Shipping Act. It provides a system of navigational aids including radar responders and channel markers. It develops and sets national standards for design and construction of ships and their equipment; methods of handling cargo; safe working practices in ships; life-jackets and other emergency flotation devices; number, qualifications and certification of seagoing personnel, and discipline on board ships; bridge-to-bridge communications between ships; and safe navigating and operating procedures. The Coast Guard is responsible for the marine element of search and rescue operations

in Canada, working closely with National Defence staff to ensure that the most suitable equipment reaches the scene promptly.

Other responsibilities of the Coast Guard include the operation of the registry of ships, administration of the licensing of small vessels, clearing channels of ice for winter and Arctic navigation, and protection of the interests of owners of wrecked ships and their cargoes. It is also responsible for minimizing pollution from ships under the Canada Shipping Act and the applicable sections of the Arctic Waters Pollution Prevention Act.

Pilotage is mandatory in certain Canadian waters. The Coast Guard establishes national standards and maintains liaison with the Atlantic, Laurentian, Great Lakes and Pacific pilotage authorities which administer the provisions of the Canada Pilotage Act and related regulations.

## 13.2 Air transport

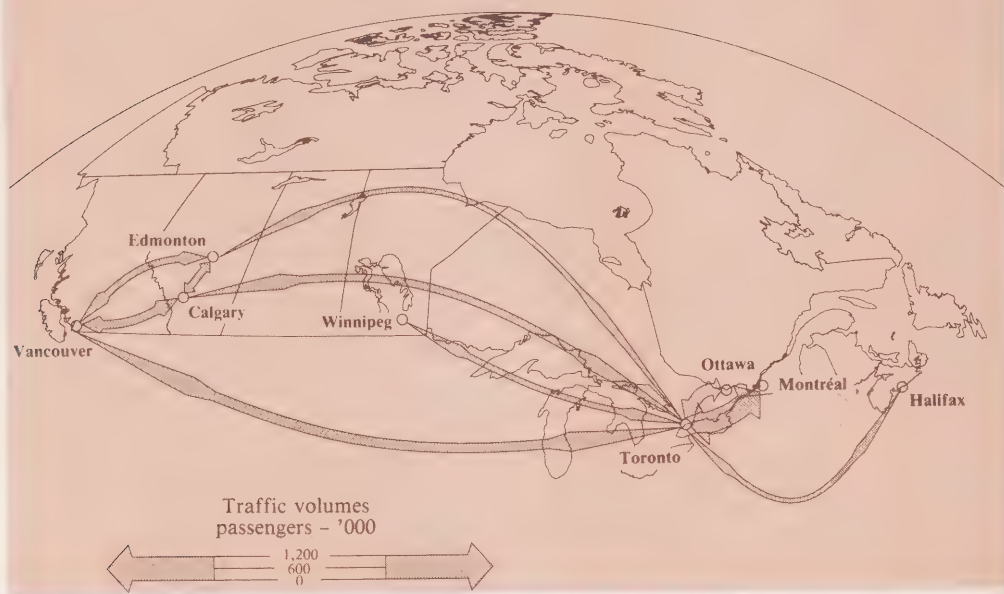
### 13.2.1 Air service categories

The same three categories of air services have been offered by air carriers in Canada in recent years. These categories are unit toll (composed of mainline unit toll and other unit toll), charter and specialty. Each category may be domestic or international in designation and technically, at least, can be provided by either fixed-wing aircraft or helicopters. In 1985, there were 1,314 Canadian carriers and approximately 950 foreign carriers licensed to provide air services within and to and from Canada.

Although the categories have remained, for the most part, immutable, the entry barriers for these services have gradually evolved and changed. For example, prior to 1967, to obtain a unit toll licence for scheduled services, evidence of "Public Convenience or Necessity" (PCN) had to be provided for the proposed service of a carrier. To obtain a licence for a carrier in any one of the other classes, evidence of "Public Interest", a lesser criterion, was required.

In 1967, with the passage of the National Transportation Act, the PCN criterion was necessary for all types of licences and, until recently, it was also the main requirement for approval of a new service. With the introduction of the "New Canadian Air Policy" in May 1984, and the "Freedom to Move" paper (published by the Minister of Transport) in July 1985, a new criterion termed "Fit, Willing and Able" (FWA) was proposed.

Chart 13.1

**Scheduled air passenger origin and destination, top 10 domestic city pairs, 1985**

The results of these changes have literally changed the scope of Canadian commercial aviation. For example, major transcontinental routes, previously served exclusively by Air Canada and Canadian Pacific Air Lines, are now served by an additional four or five carriers, depending on the route. For the passenger, this has meant extended options. For example, in 1986, a traveller flying from Toronto to Winnipeg could fly Air Canada, Canadian Pacific, Pacific Western, Air Ontario or Nordair.

The resulting competition has inevitably led to increased competition in fares. In 1985, 53% of all domestic scheduled passengers travelled on discount fares, compared to 45% in 1983.

Other major carriers in this new, more competitive environment are those specializing in charter services. For example, in 1980, Wardair started offering charter services between major Canadian cities, in direct competition with other major carriers. By the end of 1985, Wardair was licensed to operate international scheduled services, and in May 1986, was licensed to operate domestic scheduled services.

The long-standing Canadian aviation structure, based on two transcontinental carriers and four regional carriers, has thus been dismantled.

The new structure, while more complex, is a dynamic and changing one. Operating in a less regulated environment, carriers now introduce (and withdraw) their services more freely, while offering competitive fares.

### 13.2.2 Carriers

**Canadian carriers.** For statistical purposes, Canadian carriers were assigned to new reporting levels under revised air carrier regulations implemented at the beginning of 1981. Level I was comprised of the seven largest carriers: Air Canada, CP Air, Eastern Provincial, Nordair, Québécoir, Pacific Western and Wardair. In 1985, these airlines earned 82% of total operating revenues for Canadian commercial air carriers. The remaining 18% was earned by 955 smaller air carriers providing public transportation services which are assigned to Levels II through V depending not only on revenue but on licences held, number of passengers carried and tonnes of goods enplaned. Many of these operate in areas of Canada which are relatively inaccessible by surface transport. Some of these carriers provide a variety of specialty or non-transport services involving activities such as aerial surveys and crop dusting.

**Canadian Airlines International Ltd.** became operational in April 1987. This constituted a major structural change in the industry, resulting from the integration of the operations of Pacific Western Airlines Ltd. and Canadian Pacific Air Lines Ltd., along with the subsidiary airlines Nordair and Eastern Provincial.

*Pacific Western Airlines Ltd.* operated scheduled passenger and cargo services in Western and Northwestern Canada, as well as to Toronto in Eastern Canada and a transborder service to Seattle.

*Canadian Pacific Air Lines, Ltd. (CP Air)*, a private company, was established in 1942 by integrating 10 air carrier bushline companies and developed into a major international airline linking Canada with cities in North and South America, Europe, Asia and Australasia.

*Nordair Ltée - Ltd.* was established in 1957 by the merger of Mont Laurier Aviation and Boreal Airways and became a subsidiary of Canadian Pacific Air Lines Ltd. It operated scheduled services in Quebec, Ontario and Northwest Territories, and to Winnipeg and Pittsburgh, as well as extensive domestic and international charter flights throughout Canada and from Eastern Canada to the Southern United States, the Caribbean and Mexico.

*Eastern Provincial Airways (1963) Ltd.*, another subsidiary of CP Air, provided scheduled services in the Atlantic provinces and Quebec.

**Air Canada**, a Crown corporation incorporated in 1937 as Trans-Canada Air Lines, maintains passenger, mail and commodity services over a network extending to some 60 destinations in Canada, the United States, Great Britain, Europe, Bermuda and the Caribbean; Bombay and Singapore have recently been included. As well, it has extensive charter operations to the southern United States and the Caribbean.

**Wardair Canada Ltd.** is Canada's principal charter airline but now operates both domestic and international scheduled services. Mainly, it provides domestic and international charter services, especially to Europe, the United States and the Caribbean.

**Québecair**, with its head office at Montreal International Airport, Dorval, offers scheduled services in Quebec and Labrador; subsidiaries handle flights by light aircraft, charter and contract services.

### 13.2.3 Airport statistics

**Airports.** Of the approximately 2,200 aerodromes in Canada in 1985, 1,255 held operating

licences from Transport Canada, which itself operated 122. These include such major airports as Vancouver, Calgary, Edmonton and Montreal, as well as both large and small airports at scattered locations across the country and extending far into the Arctic. Municipalities and other organizations operate the rest of the airports. Municipal airports served by scheduled air services are eligible for an operating subsidy from the department which also provides capital grants to help in the construction of smaller community airports.

In 1985, the number of international, national and regional airports in Canada, as defined by Transport Canada, was respectively 8, 12 and 48; the most important international airports, in terms of passengers handled, were Lester B. Pearson (formerly Toronto International), Vancouver and Calgary, respectively, with 15.8, 7.0 and 3.9 million passengers. The three busiest national airports were Montreal (Dorval), Ottawa and Regina, respectively, with 5.5, 2.1 million and 639 thousand passengers. The leading regional airports were Edmonton Municipal, Thunder Bay and Kelowna, respectively, with 903, 492 and 466 thousand passengers handled.

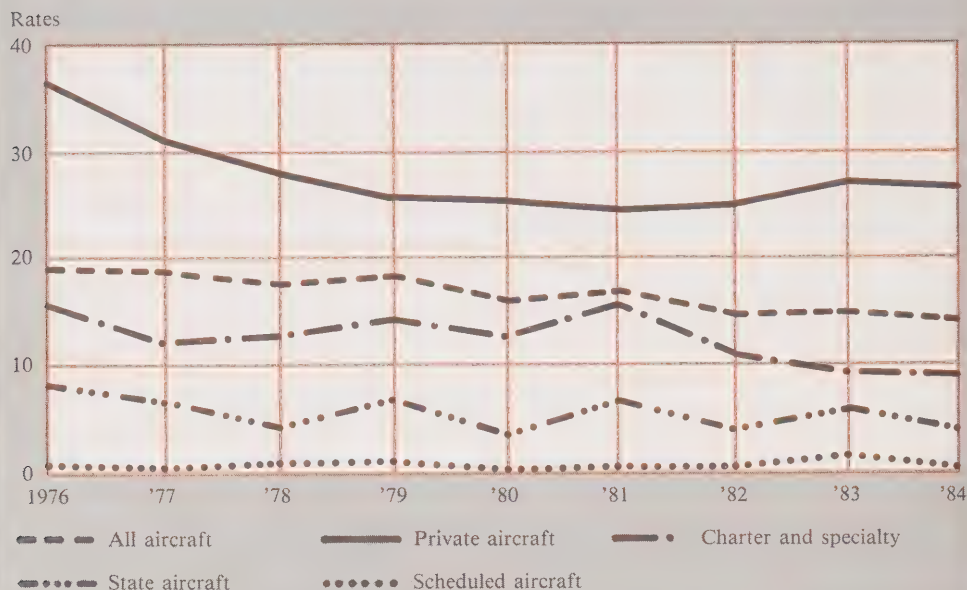
From 1964 to 1980, itinerant aircraft movements increased steadily at major airports with air traffic control towers, from just under one million to 3.7 million. The average annual increase over these years was 8.8%.

Growth in local movements has suffered a number of set-backs. In the 1960s, the federal government eliminated the subsidy it had paid for students at flying clubs and in the early 1970s, with fuel scarcities and consequent hikes in fuel prices, there were further declines in activity. The economic recession of the early 1980s served as a further set-back. The result has been without precedent in the history of civil aviation in Canada. In 1964, there were approximately 1.2 million local movements; in 1979, the figure climbed to 3.6 million; due to set-backs, by 1985 the number of local movements had dropped to 1.9 million.

Similarly, the number of itinerant movements at all airports were affected, although not as severely. Collectively their recorded landings and take-offs dropped from 3.7 million in 1980 to 3.0 million in 1985. From 1980 to 1985, 22 of the 61 airports surveyed recorded decreases in excess of 30%. The most affected were Fort St. John, BC, Grande Prairie, Alta., Pitt Meadows, BC and St. Andrews, Man. where movements dropped by about 50%. Of the five busiest airports, in terms of itinerant movements,



Chart 13.2

**Accident rates per 100,000 flying hours, by type of operation, 1976-84**

Lester B. Pearson International, formerly Toronto International, reported increased activity (13.2%) in 1985 compared to 1980. The airports at Vancouver and Montreal (Dorval) both experienced a decrease of about 12%. Calgary International declined 15%, while movements at Edmonton Municipal declined by 33%. In 1984, itinerant movements began to rise (nearly 2% over 1983), and growth continued in 1985, due to a greater availability of attractive fares and to increased frequency of service.

#### 13.2.4 Air transport statistics

Collection and processing of data filed by air carriers with the CTC air transport committee, and administrative data on aircraft movements at Transport Canada and other selected airports, is the responsibility of the aviation statistics centre, a section of the transportation division of Statistics Canada. The centre is located within the Canadian Transport Commission to meet the internal information needs of both Transport Canada and the CTC. In addition the centre conducts Statistics Canada's air statistics publication program, including the following data.

**Air carrier statistics.** Since 1955, the overall trend in the number of passengers has been one

of upward growth. In 1955, Canadian carriers provided transportation for approximately 3 million passengers, a figure which had increased to over 29 million by 1985. Notable growth periods span the 1960s and the 1970s. The one major exception came in the 1981 to 1983 period when the economy suffered a slowdown.

In 1955, total operating revenues generated by the carriers amounted to approximately \$153 million. In 1985, this came to about \$5.5 billion, a 36-fold increase over the 31 years. Of the \$5.5 billion, fixed-wing operators handled approximately 96% of the revenues with the helicopter operators generating approximately 4%. From 1975 to 1985, the operating revenues of helicopter operators increased from \$83 million to \$233 million.

The total operating expenses from 1955 to 1985 have followed approximately the same growth curve as the operating revenues, although almost consistently they have been lower than the operating revenues. The growth in operating expenses for the helicopter industry parallels the growth in the operating revenues with a three-fold increase between 1975 and 1985.

From 1961 to 1985, both the operating revenues and operating expenses, adjusted for



changes in air transportation prices, showed a three-fold increase. In 1961, operating revenues were at about \$260 million, as were operating expenses. In 1985, they had increased, respectively, to \$857 million and \$841 million.

There have been some exceptions to this pattern of steady upward growth. In 1983, as Canada and the world community experienced an economic slowdown, both operating costs and revenues stagnated from the previous year. The loss amounted to approximately \$14 million. In 1984, the industry again returned to profitability, with a recorded net income of \$80 million. In 1985, industry operating revenues peaked at \$5.5 billion, representing an increase of 8.5% over the previous year.

### 13.3 Rail transport

In Canada, railways began carrying passengers nearly 150 years ago. Built initially to link the Atlantic and Pacific Coasts, Canada's major railways were instrumental in opening the West to settlement. Now they are concerned principally in the movement of freight, especially bulk commodities, to processing plants or to markets. Passenger services over their lines are provided by a separate corporation.

In recent years, railways have faced strong competition from highway and marine transport. Still indispensable for carrying bulk commodities, railways facilitate the development of natural resources in isolated areas. Only pipelines have competed with them by providing an alternate economical means of transporting the products of oil and gas fields for long distances overland.

The rapid growth of containerization has contributed momentum to the integration of railway, highway, shipping and other modes of transport. Canada's two major railways are heavily involved in several forms of transportation. They have evolved from purely rail operations to highly-integrated multimodal transportation systems.

#### 13.3.1 Railway systems

Canadian railway transport is dominated by two transcontinental systems, supplemented by some 30 regional railways. The government-owned Canadian National Railway system is the largest transportation enterprise and operates the longest trackage in Canada. It serves all 10 provinces and the Great Slave Lake area of Northwest Territories. CP Rail, operated by a joint-stock corporation, Canadian Pacific Ltd., provides services in eight provinces.

Regional railways provide railway services meeting the special needs of their areas of operation, particularly in British Columbia and Northern Ontario. In addition, both Canadian railways and US railroads provide connecting services between the two countries.

#### 13.3.2 VIA Rail Canada Inc.

**VIA Rail Canada Inc.**, a Crown corporation, runs passenger trains over CN and CP tracks. It was incorporated in January 1977 with a mandate to revitalize passenger rail services in Canada and to manage and market them on an efficient commercial basis, reducing the financial burden on the government. VIA operates under contract with the federal government to provide designated passenger rail services, entering into contracts with the railways for the operation of trains. Its income is derived from passenger revenues and payments received from the federal government under passenger rail service contracts. With the exception of commuter services, VIA is totally responsible for all inter-city passenger trains previously operated by CN and CP Rail, and has integrated the passenger rail services staffs of the two railways under a single administration.

#### 13.3.3 Rail transport statistics

**Trackage and rolling stock.** A new statistical series on first main track and rolling stock was introduced with 1982 data. This was a result of new reporting requirements by the Canadian Transport Commission.

Table 13.4 presents statistics on mainline track operated by area for the years 1982 to 1984. Table 13.5 gives freight and passenger equipment in operation at year end for the years 1982 to 1984.

Freight carrying capabilities of the railways are steadily being improved with larger, more efficient cars and locomotives and modernized handling and terminal services. Each year hundreds of units, particularly freight cars, are converted and modified for specific types of traffic and replaced by special-purpose equipment for particular hauling jobs. Passenger trains as well are lighter and faster than formerly, with meal service modelled more on the airlines and take-out counters than on hotel dining-rooms.

**Revenue freight.** Total freight carried by all common carrier railways, including national loadings and receipts from US connections, in the years 1980-84, is shown in Table 13.6 under the commodity structure adopted in 1970, based on Statistics Canada's commodity classification. In 1984, a total of 255 million tonnes of freight were carried.

Chart 13.3  
Kilometre  
Guide

	Calgary	Charlottetown	Edmonton	Fredericton	Halifax	Montréal	Ottawa	Québec	Regina	St. John's	Saskatoon	Thunder Bay	Toronto	Vancouver	Victoria	Whitehorse	Winnipeg	Yellowknife
Calgary	●	4917	299	4558	5042	3743	3553	4014	764	6183	620	2050	3434	1057	1123	2385	1336	181
Charlottetown	4917	●	4949	359	232	1184	1374	945	4163	1294	4421	2878	1724	5985	6051	7034	3592	6460
Edmonton	299	4949	●	4598	5082	3764	3574	4035	785	6212	528	2071	3455	1244	1310	2086	1357	1511
Fredericton	4558	359	4598	●	346	834	1024	586	3813	1622	4070	2527	1373	5634	5700	6684	3241	6109
Halifax	5042	232	5082	346	●	1318	1508	912	4297	1349	4554	3011	1857	6119	6185	7168	3726	6593
Montréal	3743	1184	3764	834	1318	●	190	270	2979	2448	3236	1693	539	4801	4867	5850	2408	5275
Ottawa	3553	1374	3574	1024	1508	190	●	460	2789	2638	3046	1503	399	4611	4677	5660	2218	5086
Québec	4014	945	4035	586	912	270	460	●	3249	2208	3507	1963	810	5071	5137	6120	2678	5546
Regina	764	4163	785	3813	4297	2979	2789	3249	●	5427	257	1286	2670	1822	1888	2871	571	2297
St. John's	6183	1294	6212	1622	1349	2448	2638	2208	5427	●	5684	4141	2987	7248	7314	8298	4855	7723
Saskatoon	620	4421	528	4070	4554	3236	3046	3507	257	5684	●	1543	2927	1677	1743	2614	829	2039
Thunder Bay	2050	2878	2071	2527	3011	1693	1503	1963	1286	4141	1543	●	1384	3108	3174	4157	715	3582
Toronto	3434	1724	3455	1373	1857	539	399	810	2670	2987	2927	1384	●	4492	4558	5528	2099	4966
Vancouver	1057	5985	1244	5634	6119	4801	4611	5071	1822	7248	1677	3108	4492	●	66	2697	2232	2411
Victoria	1123	6051	1310	5700	6185	4867	4677	5137	1888	7314	1743	3174	4558	66	●	2763	2298	2474
Whitehorse	2385	7034	2086	6684	7168	5850	5660	6120	2871	8298	2614	4157	5528	2697	2763	●	3524	2707
Winnipeg	1336	3592	1357	3241	3726	2408	2218	2678	571	4855	829	715	2099	2232	2298	3524	●	2868
Yellowknife	1811	6460	1511	6109	6593	5275	5086	5546	2297	7723	2039	3582	4966	2411	2477	2704	2868	●

## Official highway distances

A major proportion of total revenues was generated by the two major railways in Canada as shown in Table 13.7. In 1984, Canadian National Railways accounted for 50.1% of the total; Canadian Pacific accounted for 33.4%.

**Passengers carried.** In 1984, 21.9 million revenue passengers travelled by rail. Of these VIA carried 6.8 million or 30.9%. Commuters accounted for 14.6 million passengers, or 66.8%. Preliminary data for 1985 show that VIA passengers numbered 7.0 million, up 3.9% from 1984.

## 13.4 Road transport

### 13.4.1 Highways

Every province across Canada has a network of highways, both freeways and scenic routes. Linking capitals and major cities from Victoria on Vancouver Island to St. John's in Newfoundland is the Trans-Canada Highway, completed in 1962. Branching from it west of Winnipeg and thence northwest to Prince Rupert is the Yellowhead Highway. From the two westernmost provinces the cities of the south are joined to Yukon and Northwest Territories by a number of highways. Of these the Alaska Highway from Dawson Creek, BC to

Fairbanks, Alaska is the oldest and best known. It celebrated its 40th anniversary in 1982. Crossing it at Whitehorse is the Klondike Highway from Skagway to Dawson; from there the Dempster Highway leads to Inuvik in the Mackenzie River delta. Fort Simpson and Yellowknife have access to British Columbia via the Liard Highway and to Alberta via the Mackenzie Highway. Saskatchewan's most northerly highway is the Semchuk Trail which extends in winter to the shores of Lake Athabaska. In Manitoba it is possible to go north from Winnipeg to Lynn Lake. Ontario's highway system extends as far north as Red Lake. In Quebec, the highways extend eastward and westward from Montreal and north to Chibougamau to form a great circle.

In Southern Canada many highways have been built between cities. At various points along the US-Canada border highways provide access to neighbouring states. One of the principal highways in Eastern Canada is the MacDonald-Cartier or 401 which extends from Windsor in southwestern Ontario to Cornwall and thence into Quebec to become the Cartier-MacDonald or Highway 20 along the south shore of the St. Lawrence River through to Rivière-du-Loup.

To complete the highway system, bridges, ferries and causeways are used to cross major waterways. A CN Marine ferry joins Port-aux-Basques in Newfoundland and North Sydney in Cape Breton; the Canso Causeway links Cape Breton Island to mainland Nova Scotia. Highways in that province are supplemented by many ferries, providing connections to Prince Edward Island, New Brunswick, Newfoundland and Maine. Along the lower St. Lawrence River and the Niagara River, international toll bridges and ferries link Ontario to New York State. Two bridges and a tunnel join Windsor and Detroit. Crossing the St. Clair River are two toll ferries and a bridge. Another bridge connects the twin cities of Sault Ste Marie, Ont. and Sault Ste Marie, Mich.

On the West Coast, ferries are used between mainland British Columbia and Vancouver Island, in coastal waters and to points on the US seaboard. They vary from the SeaBus, a commuter ferry which is part of Vancouver's urban transit system, to the Prince Rupert-Skagway ferry which is a coastal service linking the Yellowhead and Klondike highways. This ferry and others along the Inner Passage take the place of highways along the rugged shoreline. The ferry from Swartz Bay to Tsawwassen is part of the Trans-Canada Highway, and the major link between Victoria and Vancouver. To the South, the Victoria-Seattle ferry is a popular summer alternate to air or highway journeys to the west coast states.

### 13.4.2 Motor vehicles

**Registrations.** The number of vehicles registered for road use increased to 14.8 million in 1985. Of that total, 75.0% were passenger cars and 21.2% were trucks and buses. Total registrations by province and territory are given in Table 13.9 and detail by type are shown in Table 13.10. Because of interprovincial differences in vehicle classification, the data are not fully comparable among the various jurisdictions.

**Motive fuel sales.** Most provinces levy taxes on motive fuels at point of sale. To estimate the amount of fuel sold for road motor vehicles, tax-exempt sales, exports and sales on which tax refunds are paid are eliminated from gross sales. A summary for the years 1981-85 is shown in Table 13.11. However, because Alberta and Saskatchewan no longer collect road fuel taxes, data are unavailable for Alberta from 1979 and for Saskatchewan from April 1, 1982.

### 13.4.3 Urban transportation

Almost 60% of all transportation activity in Canada is in urban areas, where 75% of the

population lives. About 80% of all urban travel is by private automobile. Adverse public reaction to further road building and concern over energy, air pollution and congestion generated by private cars has led to new emphasis on public transit, including buses, subways and streetcars.

Although provincial and municipal governments have prime responsibility for urban transportation, the federal government has taken some initiatives in the urban transit field. Transport Canada, in an urban research program to develop improvements to traffic management and public transport, has reviewed urban transportation services for the disabled and supported the development of a training program for urban transit personnel, a project carried out jointly with the provinces and the transit industry. A federal Urban Transportation Assistance Program (UTAP) provides the provinces with funds but does not specify their use. Projects selected by the provinces have included bus and equipment purchases, construction of garage and maintenance facilities, provision of bus shelters and pedestrian walkways, and grade separations.

Demand for adequate transport facilities in urban areas has placed a heavy financial burden on municipalities. Formerly, provincial cost-sharing programs which assisted in meeting the capital and operating costs of urban transportation systems were strongly oriented to freeways and roads. Several provinces are now shifting their emphasis toward transit planning and construction.

### 13.4.4 Intercity buses

In recent years buses have to a considerable extent supplanted the train for relatively short journeys by public transportation between cities and in rural areas. In 1984 the Canadian intercity bus industry carried about 28 million passengers. Although its major services are intercity, the industry also provides some other passenger services such as school bus, charter, tour and sightseeing. Most operators carry parcels as well. Table 13.12 presents summary statistics of this industry for the period 1980-84. Especially for commuters, however, trains and other guided ground transport systems are providing fast and efficient services in large metropolitan regions such as those around Toronto, Vancouver and Calgary.

### 13.4.5 Trucking

The truck is the most versatile of the goods-carrying vehicles in that it is not bound by tracks or waterways. It is as useful for door-to-door



delivery in a city as for long distance haulage. Because it runs on public roads and highways its use is not confined to for-hire carriers. Firms in other industries may carry their own goods or use trucks for other operations related to their business. Thus trucking should be considered as having three components: for-hire trucking, private trucking and household goods moving.

**For-hire trucking.** In 1984 the Canadian for-hire trucking industry, excluding household goods movers and small operators, reported a gross operating revenue of \$6.7 billion, a fleet of 50,064 trucks and tractors, and some 88,755 trailers and other equipment. Transport of goods between Canadian cities alone earned an estimated \$4.4 billion, with the industry hauling about 162 million tonnes of goods. All but 14% of this total remained in the province of origin. The industry also hauled goods both between Canada and the United States, and locally within Canadian cities.

**Private trucking.** It has long been thought that carriage of goods by firms in industries other than for-hire trucking might possibly equal the volume carried by for-hire truckers, with no accurate estimate of the actual extent. A new survey was launched by Statistics Canada in 1982 to delineate private trucking in Canada. The results showed that other industries use numerous trucks. In 1984 there were 2,954 private carriers operating a fleet of 15 or more trucks, tractors and trailers and having dedicated drivers. These carriers, in total, operated about 142,000 pieces of equipment and spent \$604 million on fuel. See Table 13.18 for additional information.

**Household goods movers.** In 1984, 416 household goods movers earning more than \$100,000 gross revenue annually had total operating revenues of \$380 million. These carriers employed 8,514 people and operated 6,055 pieces of equipment.

## 13.5 Water transport

Because of Canada's size, geography and dependence on trade, water transport has always played a dominant role in the economic system. Historically the earliest industries developed because of convenient access to water transportation. To the present day, water transport has continued to be a relatively cheap and easy means of moving raw materials and consumer goods.

The carriage of goods and persons from one Canadian port to another is commonly known as the coasting trade. Ships engaged in this trade

are said to be in coastwise or domestic shipping. In the region from Anticosti Island on the St. Lawrence River upstream to the head of the Great Lakes, the coasting trade is restricted to ships registered in Canada. All other ships require a waiver to engage in this trade, except for ships registered in a Commonwealth country which may operate from a port on the West Coast of Anticosti Island to a port on the East of that island.

Except for the coasting trade, all Canadian waterways including canals, lakes and rivers are open on equal terms to all countries, and Canadian ships must compete with foreign-flag ships.

### 13.5.1 Canadian water carriers

**Ships of Canadian registry.** Part I of the Canada Shipping Act sets out the sizes, types and ownership of vessels which must be registered. As at January 1, 1985, there were 36,301 ships with a total gross register tonnage (GRT) of 5.515 million in the Canadian registry. Of these, 85% were less than 40 GRT and 11% from 40 to 500 GRT. This was an increase of 679 ships since 1984.

**Statistics on water transportation.** During 1984, revenues of \$2.3 billion were generated by 320 Canadian-domiciled for-hire, private, government and sightseeing marine carriers, according to the 1984 annual survey of water transportation. This survey excludes operators earning less than \$100,000 gross operating revenues in the previous year. Revenues for 1983 were \$2.4 billion for 309 carriers. The largest portion of 1984 revenues, \$1.2 billion, was generated by 214 carriers in the for-hire water transportation industry. In 1983 there were 217 for-hire carriers which generated \$1.3 billion. The water transport operations of 48 private carriers accounted for \$567.0 million in 1984 compared with \$430.1 million by 49 carriers in 1983. The 30 government carriers accounted for \$435.6 million, up from 30 carriers and \$420.6 million in 1983. Sightseeing undertakings contributed the balance of the total revenue.

The 320 carriers in 1984 employed 16,519 crew who earned wages totalling \$544.2 million. Of these totals, the 214 for-hire carriers employed 6,555 crew, with wages of \$253.1 million.

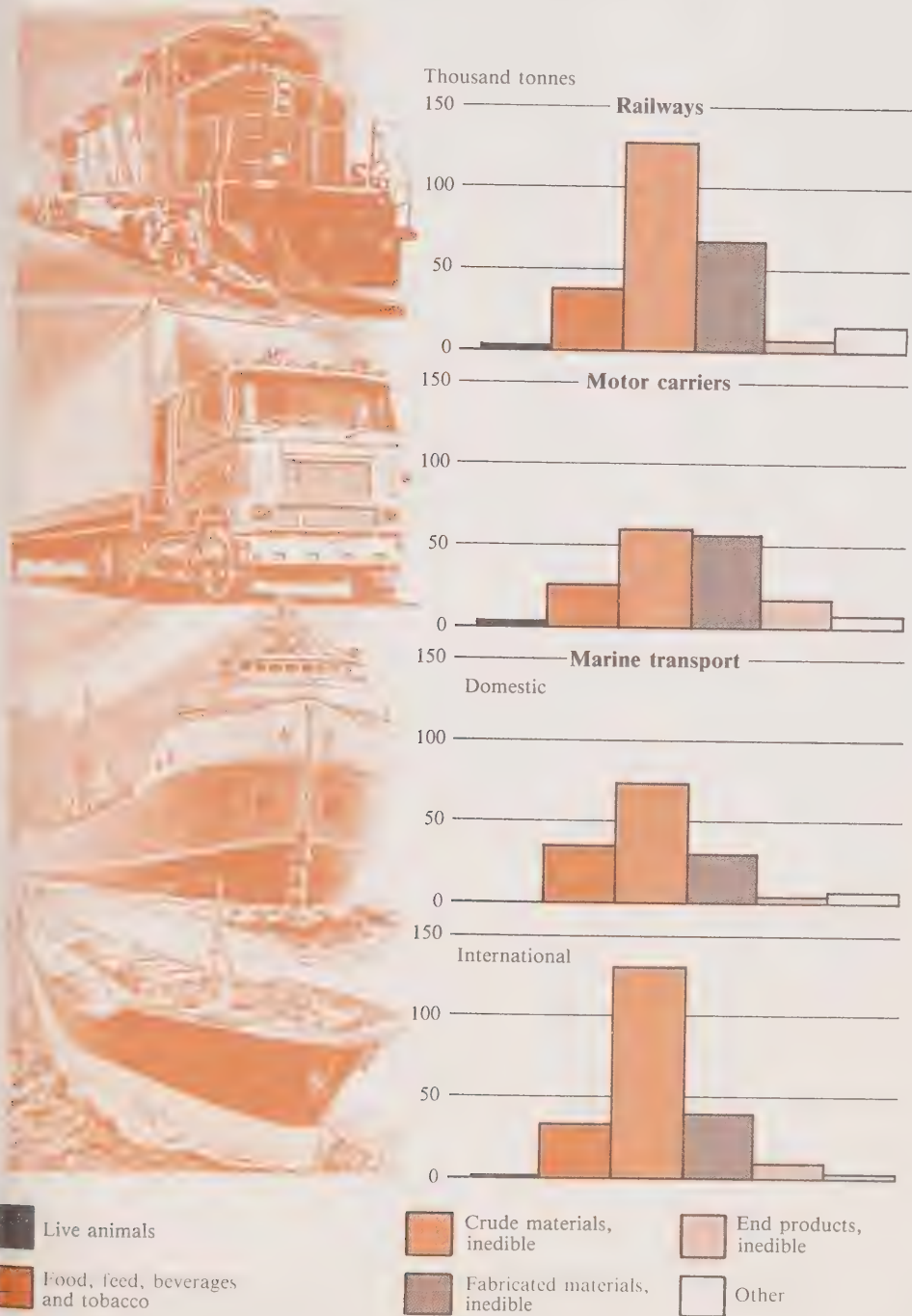
### 13.5.2 Freight movement

**Shipping traffic.** Table 13.19 shows the number and net register tonnage of vessels entering Canadian customs and non-customs ports, except for exclusions from the source surveys or from the tabulations. In coastwise shipping these are vessels of less than 15 net register tons (equivalent to 42 m<sup>3</sup>), Canadian naval vessels



Chart 13.4

Commodities transported as revenue freight by railways, motor carriers and marine transport, 1984



and fishing vessels. A register ton is an internationally recognized measure used to indicate the capacity of space within the hull and the enclosed spaces above the deck of a vessel. For international shipping, fishing vessels and ships not engaged in trade are excluded from the tabulations.

Freight movement through large ports includes cargoes for or from foreign countries and cargoes loaded and unloaded in the coasting trade between Canadian ports. Table 13.20 presents data by province on these freight movements.

In 1985 there were 327.5 million tonnes loaded and unloaded at Canadian ports, compared with 342.8 million tonnes in 1984. Table 13.21 shows the principal commodities loaded and unloaded in international and coastwise shipping at 10 ports handling large cargo volumes in 1985. These ports handled 68.6% of Canada's international shipping and 40.3% of cargo loaded and unloaded in the coastwise shipping. The specific commodities shown are those transported in volume, mainly in bulk.

Many ports also have in-transit movement of vessels that pass through harbours without loading or unloading or move from one point to another within a harbour. Shipping statistics, which cover traffic in and out of both customs and non-customs ports, do not include freight in transit or freight moved from one point to another within the harbour.

### 13.5.3 Ports and harbours

Canada has 25 large deep-water ports and about 650 smaller ports and multi-purpose government wharves on the East and West Coasts, along the St. Lawrence Seaway and Great Lakes, in the Arctic and on inland lakes and rivers.

Transport Canada is responsible for planning and providing adequate public port facilities to serve commercial interests and for improving or phasing out facilities in response to economic growth or changes in traffic patterns resulting from new industries, new types of ships and new developments in cargo handling. Specialized deep-water terminals for bulk commodities, particularly coal and oil, are also provided when needed under long-term full cost-recovery agreements with individual shippers. These often complement related development programs sponsored by the Department of Regional Industrial Expansion.

Transport Canada establishes and collects fees from users of port facilities. All rates assessed by ports under federal jurisdiction are subject to departmental approval. Harbour

dues, cargo rates, wharfage, berthage and other charges on goods and vessels are subject to some regional and local variation.

In addition to public facilities, there are extensive wharf and associated cargo-handling facilities owned by private companies, usually for handling coal, iron ore, petroleum, grain and pulpwood.

The continuing trend to larger ships has resulted in increased investment in ports for facilities farther from shore, for channel dredging, larger turning basins and more complex systems of aids to navigation and traffic control.

Increasing use of containers has brought significant changes in cargo routing and handling. Container ships travel at high speeds and port turnaround time is critical. Port facilities have to be efficient and specialized; they include special ramps for roll-on/roll-off vessels; large container cranes which can handle 20-ft (6.096 m) and 40-ft (12.192 m) containers of various heights; special container-packing facilities; large open storage areas for containers, automobiles, lumber and bulk products such as coal; and facilities for loading and unloading rail cars and trucks.

### 13.5.4 Ferries

Ferries provide links between Canada's mainland and island areas. For constitutional and historical reasons, Transport Canada provides direct financial support to ferry and coastal shipping services in Eastern Canada and indirect support to a number of services in other regions.

In Eastern Canada these services are operated by CN Marine under a fixed price contract, with the government determining service levels and rates. The CN Marine services include North Sydney-Port-aux-Basques, North Sydney-Agria, Tormentine-Borden, Digby-Saint John, Yarmouth-Bar Harbour (Maine), and the Newfoundland coastal service.

Other government-supported services in Eastern Canada include Wood Island-Caribou, Souris-Cap-aux-Meules, Montreal-Cornerbrook-St. John's and the Grand Manan ferry. The Newfoundland and Quebec governments also receive direct grants for small provincial ferry services.

On the West Coast ferries are operated by provincial Crown corporations such as British Columbia Ferry Corp. and private companies such as Canadian Pacific Ltd. Federal grants are provided to the province under arrangements similar to those with eastern provinces. The Swartz Bay-Tsawwassen ferry is subsidized as part of the Trans-Canada Highway.

Farther north the Northern Transportation Co. Ltd., a Crown corporation, operates marine transportation services on the Athabaska River and Mackenzie River, the Western Arctic Coast and in the Keewatin District of Hudson Bay.

### 13.5.5 St. Lawrence Seaway

The St. Lawrence Seaway Authority, constituted as a corporation by act of Parliament in 1951, undertook the construction (and subsequent maintenance and operation) of Canadian facilities between Montreal and Lake Erie to allow navigation by vessels of 7.9 m draft. At the same time, construction of similar facilities was undertaken by the Saint Lawrence Seaway Development Corp. of the United States. The seaway was opened to commercial traffic in April 1959 and officially inaugurated in June 1959. Included in the seaway system and under the seaway authority's jurisdiction for operation and maintenance is the Welland Canal.

The seaway is the world's longest canal system measuring 3 769 km from the Atlantic Ocean to the western end of Lake Superior. A vessel rises 177 m as it moves from the lower St. Lawrence River to the lakehead. Nearly 100 m of that rise occurs as it bypasses Niagara Falls. This seaway enables an ocean-going ship to penetrate North America close to mid-continent.

During its first quarter-century, the seaway together with developments in water transport changed the size and function of a number of ports on its waters. At St. Lawrence River ports such as Port-Cartier, Montreal and Quebec City, grain is unloaded from lakere and loaded on other vessels for the Atlantic crossing. The port of Thunder Bay accounted for well over 90% of the total wheat tonnage loaded for ports along the canal system during 1984 and 1985. Montreal and Quebec City were the principal destination ports with over 40% of the total. Baie Comeau accounted for almost 18% of the total domestic wheat tonnage unloaded in 1985, following a 5% increase over 1984.

Iron ore shipments originating from Sept-Îles and Pointe-Noire accounted for a solid two-thirds of the total tonnage loaded during these

two years, followed by Point Cartier which registered a 21% share in 1985, an increase of 5% over its 1984 share. Over 75% of the domestic iron ore shipments were destined for Hamilton during both years. The Netherlands and the United Kingdom were the principal foreign destinations with 27% and 35% of the total for 1984 and 1985, respectively. Ports along the US East Coast and gulf region were also important destinations for international iron ore shipments with a cumulative share of approximately 15% of the total. Shipping activities at ports along the canal system are a function of their efficient system in handling wheat and other bulk cargo.

**Seaway traffic.** Table 13.23 provides a summary of traffic statistics for the Montreal-Lake Ontario and Welland Canal sections of the seaway.

### 13.5.6 Canadian Coast Guard

The Coast Guard fleet includes icebreakers, aid and supply vessels, search and rescue vessels, specialized vessels for ship channel maintenance and submarine cable operations, and fixed-wing aircraft and helicopters.

Through its radio stations and other communications facilities linked to domestic telephone and telex lines, the Coast Guard provides 24-hour, ship-to-shore safety and commercial communications, and regularly scheduled weather and navigation information broadcasts to all vessels. In some areas, particularly busy harbours, this network is supplemented by local systems which monitor and direct ship movements.

On average, more than 1,700 ships a year receive icebreaker support either singly or in convoy or are routed through the ice. Since 1970, ports in the Gulf of St. Lawrence and as far inland as Montreal on the St. Lawrence River have been accessible throughout the year. During summer, some icebreakers take part in the annual Arctic resupply operations. The icebreakers escort a fleet of government-chartered tankers and dry cargo vessels which deliver the bulk petroleum, building supplies, food, clothing, furniture and other products needed by the residents of remote settlements and military installations.

# TABLES

..	not available	e	estimate
...	not appropriate or not applicable	p	preliminary
—	nil or zero	r	revised
--	too small to be expressed	certain tables may not add due to rounding	

## 13.1 Summary of Canadian commercial aviation, operational statistics, 1955-85

Year	Passengers '000	Passenger kilometres '000 000	Cargo kilograms '000	Mail kilograms '000	Hours flown '000
1955	2,763	1 983	105 163	11 008	623
1956	3,370	2 479	134 999	11 599	757
1957	3,752	2 909	110 870	13 274	767
1958	4,037	3 415	80 810	14 237	728
1959	4,703	3 958	84 414	14 921	796
1960	4,830	4 507	95 401	15 709	879
1961	5,102	5 323	91 955	16 216	865
1962	5,425	5 862	93 895	17 432	843
1963	5,599	6 162	100 325	19 002	867
1964	6,031	7 435	110 386	21 230	948
1965	6,832	8 729	128 618	22 879	1,128
1966	7,727	10 044	170 909	22 235	1,375
1967	9,213	12 267	149 618	25 150	1,569
1968	9,577	13 808	185 407	26 848	1,647
1969	10,593	15 261	232 042	28 625	1,670
1970	12,031	18 605	256 420	30 068	1,669
1971	12,889	18 527	280 887	35 566	1,813
1972	14,422	21 739	307 333	38 093	1,923
1973	17,493	25 897	340 226	43 315	2,145
1974	19,601	29 166	344 429	48 096	2,301
1975	20,493	31 539	362 711	45 032	2,466
1976	20,994	32 797	341 021	55 892	2,467
1977	22,318	35 553	390 502	58 143	2,578
1978	23,649	38 249	410 204	56 756	2,664
1979	27,123	44 901	447 817	57 576	2,928
1980	28,554	46 996	399 418	59 978	3,091
1981	27,189	46 086	374 893	60 525	2,515
1982	24,447	44 179	344 703	65 431	2,454
1983	23,789	43 370	357 152	68 768	2,235
1984	27,701	46 444	464 088	80 604	2,290
1985 <sup>e</sup>	29,030	48 812	498 199	82 458	2,434

## 13.2 Financial statements, selected components, Canadian air carriers, Levels I-V, 1955-85 (million dollars<sup>1</sup>)

Year	Operating revenues	Operating expenses	Total net non-operating income	Net income	Total assets	Interest expenses
1955	153	147	--	4	123	2
1956	181	172	-1	5	143	2
1957	190	190	-1	-1	181	3
1958	202	200	-3	-2	232	4
1959	220	220	-3	-3	262	5
1960	243	245	-4	-7	335	9
1961	264	266	-11	-14	366	12
1962	293	286	-12	-5	364	13
1963	319	304	-13	1	364	14
1964	347	328	-10	8	371	15
1965	408	383	-10	13	397	15
1966	479	447	-9	16	449	16
1967	561	533	-10	11	571	19
1968	635	595	-16	12	742	26
1969	721	688	-24	3	968	37
1970	842	811	-31	-2	1,166	48
1971	918	861	-37	12	1,250	49
1972	1,056	978	-35	23	1,382	61
1973	1,254	1,173	-40	24	1,669	91
1974	1,598	1,525	-68	6	2,070	108
1975	1,891	1,823	-90	-7	2,261	120
1976	2,058	2,002	-88	-16	2,112	104
1977	2,358	2,215	-72	39	2,237	97
1978	2,680	2,514	-2	98	2,784	117
1979	3,256	3,091	-8	95	3,378	139
1980	3,985	3,798	-1	112	3,963	210
1981	4,649	4,494	-64	45	4,589	226
1982	4,679	4,693	-113	-84	4,851	201
1983	4,676	4,609	-90	-14	5,307	216
1984	5,093	4,932	-73	80	5,654	231
1985 <sup>e</sup>	5,526	5,423	-129	22	5,989	

<sup>1</sup> Current dollars.



### 13.3 Aircraft movements at airports with air traffic control towers, 1964-85

Year	Number of airports	Number of movements by type of operation ('000)			
		Itinerant <sup>1</sup>	Local <sup>2</sup>	Simulated approaches <sup>3</sup>	Total movements
1964	33	989	1,211	89	2,289
1965	33	1,114	1,483	92	2,689
1966	33	1,320	1,893	104	3,317
1967	39	1,611	2,313	114	4,038
1968	42	1,668	2,266	115	4,049
1969	46	1,821	2,381	124	4,326
1970	47	1,890	2,374	112	4,376
1971	53	2,000	2,736	159	4,895
1972	55	2,235	2,710	—	4,945
1973	56	2,587	2,667	—	5,254
1974	57	2,540	3,153	—	5,693
1975	60	2,994	3,404	—	6,398
1976	60	3,038	3,449	—	6,487
1977	59	3,228	3,461	—	6,689
1978	60	3,408	3,454	—	6,862
1979	61	3,645	3,556	—	7,201
1980	61	3,697	3,368	—	7,065
1981	60	3,569	3,132	—	6,701
1982	61	3,067	2,523	—	5,590
1983	61	2,912	2,360	—	5,272
1984	61	2,966	2,101	—	5,067
1985	61	3,031	1,907	—	4,938

<sup>1</sup> Landings or take-offs that enter or leave the tower control zone.

<sup>2</sup> Landings or take-offs that remain at all times within the tower control zone.

<sup>3</sup> After 1971, simulated approaches were counted as locals.

### 13.4 Length of mainline track operated, by area, 1982-84<sup>1</sup> (kilometres)

Area	1982	1983	1984
Newfoundland	453	449	240
Prince Edward Island	—	—	—
Nova Scotia	710	711	712
New Brunswick	1 109	1 101	1 101
Quebec	4 506	4 508	4 696
Ontario	14 880	14 944	15 044
Manitoba	2 712	2 824	2 824
Saskatchewan	4 012	4 019	4 019
Alberta	3 410	3 486	3 730
British Columbia	5 574	5 656	6 300
Northwest Territories	93	—	—
United States	575	575	575
Total	38 034	38 272	39 242

<sup>1</sup> Includes all mainline track operated under ownership, joint-ownership, lease, contract or trackage rights.

### 3.5 Railway rolling-stock in service as at Dec. 31, 1982-84

Type	1982	1983	1984
Locomotives	—	—	—
Road freight	2,986	2,870	2,809
Road passenger	219	207	210
Yard	550	538	523
Associated equipment	145	168	157
Total	3,900	3,783	3,699

**13.5 Railway rolling-stock in service as at Dec. 31, 1982-84 (concluded)**

Type	1982	1983	1984
Freight cars			
Box	69,976	63,645	58,831
Hopper	22,991	23,691	22,539
Gondola	18,406	19,702	19,492
Refrigerator	1,062	996	93
Flat	28,371	27,366	27,184
Stock	922	868	875
Caboose	2,030	1,974	1,923
Other	12,139	11,190	10,629
Total	155,897	149,432	142,407
Passenger cars			
Head end	171	170	162
Meal service and lounge	136	135	138
Sleeping	171	172	170
Conventional	359	309	319
Tempo	25	25	25
LRC	50	50	50
Turbo train	—	—	—
Rail diesel	91	93	92
Commuter	301	383	370
Total	1,304	1,337	1,326

**13.6 Commodities<sup>1</sup> hauled as revenue freight by railways, 1980-84 (thousand tonnes)**

Commodity	1980	1981	1982	1983	1984
Live animals					
Cattle	108	61	88	69	62
Other live animals	6	2	1	1	—
Sub-total, live animals	114	63	89	70	62
Food, feed, beverages and tobacco					
Meat, fresh or frozen	160	127	103	99	103
Other animal products	185	171	124	64	50
Barley	4 174	6 252	7 116	7 250	5 335
Wheat	21 512	20 273	24 643	24 577	25 001
Other grains	2 241	2 284	2 122	2 502	2 305
Milled cereals and cereal products	1 667	1 557	1 249	1 240	1 186
Fruits and fruit preparations	535	476	368	347	267
Vegetables and vegetable preparations	897	861	784	680	657
Sugar	298	251	263	319	325
Other food and food preparations	740	693	646	671	709
Animal feed	2 987	2 376	2 032	1 946	2 354
Beverages	274	195	143	102	96
Tobacco and tobacco products	28	5	1	4	1
Sub-total, food, feed, beverages and tobacco	35 698	35 521	39 594	39 802	38 387
Crude materials, inedible					
Crude animal and vegetable materials	2 521	2 237	2 153	2 082	2 647
Pulpwood (logs and chips)	12 588	11 169	10 008	10 439	10 741
Other crude wood materials	2 778	1 870	1 148	1 099	1 184
Textile fibres	117	96	73	102	81
Iron ore	54 168	49 788	35 452	30 281	35 269
Nickel-copper ore	4 983	4 457	1 890	2 738	4 228
Bauxite ore and alumina	2 752	3 134	2 793	3 091	3 523
Other metallic ores	4 627	4 516	4 014	3 807	5 382
Scrap metal, slags and drosses	2 319	2 030	1 259	1 920	2 493
Coal	22 806	24 292	24 673	25 588	39 289
Crude oil and bituminous substances	177	167	97	61	33
Gypsum	4 652	4 767	3 850	5 065	5 449
Limestone	4 132	4 438	3 226	2 972	3 096
Other crude non-metallic minerals	14 795	14 331	11 285	11 433	13 586
Waste materials	844	869	637	642	520
Sub-total, crude materials, inedible	134 259	128 161	102 558	101 321	127 522

### 13.6 Commodities<sup>1</sup> hauled as revenue freight by railways, 1980-84 (thousand tonnes) (concluded)

Commodity	1980	1981	1982	1983	1984
Fabricated materials, inedible					
Lumber	6 787	6 385	6 368	8 627	9 058
Other wood fabricated materials	1 748	1 552	1 073	1 458	1 573
Wood pulp and other pulp	5 795	5 589	5 144	6 029	5 752
Newsprint	4 428	4 456	4 094	4 681	5 030
Other paper and paperboard	3 607	3 461	2 770	2 689	2 790
Chemicals	8 175	8 290	7 231	9 882	10 803
Potash	10 652	9 703	7 681	9 239	10 937
Other fertilizers	2 552	2 370	1 894	2 190	2 608
Petroleum and coal products	10 802	10 933	9 810	9 309	9 346
Metals and primary metal products	5 815	6 884	4 636	5 990	6 511
Cement	1 763	1 804	1 348	1 589	1 409
Other fabricated materials	4 129	3 810	2 910	3 236	3 566
Sub-total, fabricated materials, inedible	66 253	65 237	54 959	64 919	69 383
End products, inedible					
Road motor vehicles and parts	4 211	4 020	3 353	3 749	4 240
Other end products	3 138	2 725	1 665	1 453	1 327
Sub-total, end products, inedible	7 349	6 745	5 018	5 202	5 567
Special types of traffic					
Piggyback (trailers and containers) <sup>2</sup>	6 331	7 496	7 002	9 492	11 433
Freight forwarded	1 501	1 355	1 177	1 249	1 283
Other special traffic	2 395	1 849	1 759	776	904
Sub-total, special types of traffic	10 227	10 700	9 938	11 517	13 619
Non-carload shipments <sup>3</sup>	549	493	618	55	42
Total	254 447	246 918	212 774	222 885	254 581

<sup>1</sup> In this table duplications are eliminated, for example, freight that is interlined between two or more Canadian railways is counted only once. The statistics do not cover US operations of Canadian railways except for the Canadian Pacific Railway line through Maine, US, and certain other short mileages which are deemed to be an integral part of the Canadian railway system. Sections of US railways operating into Canada are regarded as Canadian railways and are included. Freight carried by the Cartier Railway is included in this table, however, financial data for this railway are not available for inclusion in the financial tables.

<sup>2</sup> Excludes traffic moved in railway-operated containers and trailers.

<sup>3</sup> Includes express-rated traffic.

### 13.7 Railway operating revenues and expenses (Canadian operations), 1980-84 (thousand dollars)

Item and year	Total revenues	Total expenses
All railways		
1980	5,333,841	5,003,009
1981	6,144,610	5,742,174
1982	6,301,314	6,185,161 <sup>1</sup>
1983	7,027,369	6,437,560
1984	7,639,680	6,951,895
CNR		
1980	2,648,198	2,461,006
1981	3,066,774	2,809,215
1982	2,991,944	3,090,674
1983	3,413,020	3,208,992
1984	3,828,471	3,577,796
PR		
1980	1,757,727	1,619,299
1981	2,052,577	1,903,222
1982	2,134,336	1,904,050 <sup>1</sup>
1983	2,418,728	2,056,374
1984	2,550,147	2,204,795

Does not include provisions for income tax.

13.8 Expenditures on highway, road, street and bridge construction, 1981-86<sup>1</sup> (million dollars)

Year and province or territory	Federal and provincial governments		Municipal governments		All other sectors		Total
	New	Repair	New	Repair	New	Repair	
1981							
Newfoundland	49.2	24.9	12.4	0.1	6.6	0.5	93.7
Prince Edward Island	21.4	12.7	0.2	0.5	0.4	—	35.2
Nova Scotia	67.8	44.3	7.6	0.3	8.9	3.7	132.6
New Brunswick	93.3	7.6	10.8	5.0	5.6	2.5	124.8
Quebec	397.5	93.8	170.6	13.9	30.2	27.5	733.5
Ontario	519.7	62.2	374.1	71.0	92.1	21.9	1,141.0
Manitoba	102.4	31.7	35.1	5.7	14.7	3.4	193.0
Saskatchewan	103.3	20.4	62.1	9.6	12.9	3.9	212.2
Alberta	360.5	181.4	245.0	44.7	54.6	12.0	898.2
British Columbia	245.3	106.3	84.6	8.2	190.3	49.7	684.4
Yukon and Northwest Territories	46.2	11.1	2.4	—	16.8	0.4	76.9
Canada	2,006.6	596.4	1,004.9	159.0	433.1	125.5	4,325.5
1982							
Newfoundland	74.3	17.8	20.6	0.1	6.2	0.8	119.8
Prince Edward Island	26.0	16.0	0.2	—	0.5	0.1	42.8
Nova Scotia	74.6	67.2	4.1	0.9	5.5	3.1	155.4
New Brunswick	113.3	27.8	10.5	6.2	4.4	2.4	164.6
Quebec	345.0	110.9	160.1	26.9	21.6	24.2	688.7
Ontario	610.0	73.2	378.0	79.5	98.3	23.6	1,262.6
Manitoba	109.0	48.4	28.6	5.2	6.0	4.0	201.2
Saskatchewan	85.1	20.4	65.9	10.4	12.6	4.7	199.1
Alberta	440.5	220.1	301.7	28.0	44.7	6.7	1,041.7
British Columbia	187.8	105.5	94.0	7.2	135.7	36.4	566.6
Yukon and Northwest Territories	47.9	37.7	1.7	0.2	10.1	—	97.6
Canada	2,113.5	745.0	1,065.4	164.6	345.6	106.0	4,540.1
1983							
Newfoundland	90.2	17.9	11.7	—	4.6	0.4	124.8
Prince Edward Island	13.4	13.6	2.6	0.2	0.8	0.1	30.7
Nova Scotia	89.1	72.3	4.6	0.9	5.0	3.0	174.9
New Brunswick	97.7	28.7	9.6	5.0	9.1	4.3	154.4
Quebec	378.5	125.5	163.1	24.9	21.1	18.5	728.6
Ontario	549.4	62.9	373.5	82.3	138.5	27.5	1,234.1
Manitoba	96.3	47.3	40.3	4.9	10.9	5.7	205.4
Saskatchewan	86.4	21.7	52.0	11.9	15.1	4.0	191.1
Alberta	398.5	190.4	153.2	42.8	24.8	6.6	816.3
British Columbia	336.8	155.0	101.3	9.5	133.9	50.4	786.9
Yukon and Northwest Territories	47.9	37.1	3.3	0.2	0.4	0.7	89.6
Canada	2,184.2	769.4	915.2	182.6	364.2	121.2	4,536.8
1984							
Newfoundland	71.0	23.5	9.4	0.4	4.2	1.3	109.8
Prince Edward Island	19.3	15.3	1.2	0.2	0.9	—	36.9
Nova Scotia	87.0	88.6	7.1	1.5	6.4	3.9	194.5
New Brunswick	123.4	31.5	16.6	5.2	6.0	3.8	186.5
Quebec	427.5	112.1	196.2	28.3	33.8	23.6	821.5
Ontario	544.2	72.0	370.7	70.6	142.6	43.5	1,243.6
Manitoba	93.1	52.8	52.5	5.5	12.9	8.0	224.8
Saskatchewan	86.7	23.3	56.5	9.1	10.1	8.1	193.8
Alberta	379.9	124.9	156.0	41.2	32.8	9.8	744.6
British Columbia	304.2	131.1	98.0	8.1	117.7	63.7	722.8
Yukon and Northwest Territories	57.7	40.6	1.7	0.1	—	1.1	101.2
Canada	2,194.0	715.7	965.9	170.2	367.4	166.8	4,580.0
1985							
Newfoundland	79.4	26.0	9.4	0.4	13.5	0.6	129.3
Prince Edward Island	20.8	16.4	0.8	0.2	0.8	0.1	39.1
Nova Scotia	98.5	94.7	10.6	2.6	9.0	3.5	218.9
New Brunswick	142.4	30.0	12.1	0.3	8.8	4.1	197.7
Quebec	428.8	108.3	196.2	14.9	29.5	19.4	797.1
Ontario	523.4	70.8	365.2	70.0	164.1	46.8	1,240.3
Manitoba	94.5	50.4	34.2	5.8	12.1	5.9	202.9
Saskatchewan	89.4	26.8	46.6	5.4	8.8	5.6	182.6
Alberta	416.1	189.5	158.4	36.4	23.3	7.4	831.1
British Columbia	603.2	89.0	112.7	8.5	119.7	58.8	991.9
Yukon and Northwest Territories	58.2	46.5	4.1	0.4	0.1	0.8	110.1
Canada	2,554.7	748.4	950.3	144.9	389.7	153.0	4,941.0



### 13.8 Expenditures on highway, road, street and bridge construction, 1981-86<sup>1</sup> (million dollars) (concluded)

Year and province or territory	Federal and provincial governments		Municipal governments		All other sectors		Total
	New	Repair	New	Repair	New	Repair	
1986							
Newfoundland	81.0	26.0	10.1	0.4	20.7	0.7	138.9
Prince Edward Island	25.1	17.3	0.9	0.2	0.8	0.1	44.4
Nova Scotia	102.4	97.2	6.1	2.2	9.5	3.9	221.3
New Brunswick	102.1	30.8	12.5	0.3	6.8	4.2	156.7
Quebec	421.6	109.0	203.8	14.1	27.9	19.1	795.5
Ontario	504.1	68.1	372.4	74.1	161.1	48.2	1,228.0
Manitoba	93.4	50.6	38.1	5.8	21.7	5.7	215.3
Saskatchewan	94.4	28.5	39.4	3.1	9.1	5.6	180.1
Alberta	383.9	172.4	196.8	41.4	23.8	7.7	826.0
British Columbia	386.8	72.4	122.9	8.9	114.3	64.0	769.3
Yukon and Northwest Territories	61.9	45.2	5.5	0.1	—	0.9	113.6
Canada	2,256.7	717.5	1,008.5	150.6	395.7	160.1	4,689.1

<sup>1</sup> Actual 1981-84; preliminary 1985; intentions 1986.

### 13.9 Motor vehicles registered for road use, by province and territory, 1981-85

Province or territory	1981	1982	1983	1984	1985
Newfoundland	209,482	190,514	199,465	236,454	257,693
Prince Edward Island	68,396	68,220	71,006	73,802	76,126
Nova Scotia	515,689	535,372	549,639	508,859	529,267
New Brunswick	365,951	372,796	389,458	403,637	416,805
Quebec	2,878,827	2,826,150	2,924,351	2,921,223	2,974,099
Ontario	5,057,801	5,060,195	5,181,954	4,941,245	5,179,918
Manitoba	662,407	670,329	688,950	705,902	739,488
Saskatchewan	692,023	687,474	694,372	699,510	697,160
Alberta	1,748,918	1,787,751	1,796,454	1,745,162	1,729,287
British Columbia	1,616,614	2,074,530	2,083,659	2,129,427	2,175,032
Yukon	18,119	19,112	19,111	19,798	20,479
Northwest Territories	17,255	18,274	22,229	20,953	23,271
Canada	13,851,482	14,310,717	14,620,648	14,405,972	14,818,625

### 13.10 Types of motor vehicles registered, by province, 1981-85

Year and province or territory	Passenger cars <sup>1</sup>	Trucks and buses <sup>2</sup>	Motorcycles and mopeds	Other <sup>3</sup>	Total
1981					
Newfoundland	141,607	62,311	5,564	—	209,482
Prince Edward Island	48,564	17,826	1,888	—	68,396
Nova Scotia	350,407	144,465	20,139	118	515,689
New Brunswick	251,511	91,684	12,260	678	365,951
Quebec	2,378,851	337,759	161,279	10,496	2,878,827
Ontario	3,831,058	1,112,341	114,402	938	5,057,801
Manitoba	460,501	184,486	16,678	742	662,407
Saskatchewan	391,743	287,301	12,363	616	692,023
Alberta	1,216,340	476,938	55,640	—	1,748,918
British Columbia	1,115,959	456,206	44,449	—	1,616,614
Yukon	6,702	10,837	580	—	18,119
Northwest Territories	6,145	10,043	1,021	46	17,255
Canada	10,199,388	3,192,197	446,263	13,634	13,851,482
1982					
Newfoundland	129,387	56,440	4,687	—	190,514
Prince Edward Island	48,177	17,815	2,104	124	68,220
Nova Scotia	363,883	149,220	21,524	745	535,372
New Brunswick	249,819	100,219	12,255	10,503	372,796
Quebec	2,376,745	309,575	138,825	1,005	2,826,150
Ontario	3,842,743	1,091,362	126,090	—	5,060,195
Manitoba	464,916	187,220	17,461	—	670,329
Saskatchewan	375,165	299,389	12,269	732	687,474
Alberta	1,259,791	468,062	59,898	651	1,787,751
British Columbia	1,406,370	591,925	76,235	—	2,074,530
Yukon	6,879	11,524	709	—	19,112
Northwest Territories	6,480	10,655	1,082	57	18,274
Canada	10,530,355	3,293,406	473,139	13,817	14,310,717

**13.10 Types of motor vehicles registered, by province, 1981-85 (concluded)**

Year and province or territory	Passenger cars <sup>1</sup>	Trucks and buses <sup>2</sup>	Motorcycles and mopeds	Other <sup>3</sup>	Total
1983					
Newfoundland	133,585	59,087	6,793	—	199,465
Prince Edward Island	50,521	18,068	2,287	130	71,006
Nova Scotia	365,929	157,693	23,608	2,409	549,639
New Brunswick	259,866	107,268	13,054	9,270	389,458
Quebec	2,449,182	320,075	154,046	1,048	2,924,351
Ontario	3,900,384	1,144,354	137,216	—	5,181,954
Manitoba	478,194	191,327	18,704	725	688,950
Saskatchewan	381,934	299,640	12,122	676	694,372
Alberta	1,290,176	446,822	59,456	—	1,796,454
British Columbia	1,408,296	594,851	80,512	—	2,083,659
Yukon	6,821	11,558	732	—	19,111
Northwest Territories	6,632	14,479	1,043	75	22,229
Canada	10,731,520	3,365,222	509,573	14,333	14,620,648
1984					
Newfoundland	154,480	67,630	9,055	5,289	236,454
Prince Edward Island	52,538	18,884	2,243	137	73,802
Nova Scotia	347,303	141,769	19,117	670	508,859
New Brunswick	268,686	110,628	13,112	11,211	403,637
Quebec	2,466,201	315,248	138,719	1,055	2,921,223
Ontario	3,904,706	881,978	154,561	—	4,941,245
Manitoba	492,872	194,948	18,007	75	705,902
Saskatchewan	378,425	311,464	8,940	681	699,510
Alberta	1,274,482	411,042	59,638	—	1,745,162
British Columbia	1,427,198	620,539	81,690	—	2,129,427
Yukon	6,943	12,060	795	—	19,798
Northwest Territories	6,833	12,868	1,177	75	20,953
Canada	10,780,667	3,099,058	507,054	19,193	14,405,972
1985					
Newfoundland	168,416	73,177	10,299	5,801	257,693
Prince Edward Island	54,533	19,240	2,215	138	76,126
Nova Scotia	366,172	143,797	18,981	317	529,267
New Brunswick	278,106	114,265	13,134	11,300	416,805
Quebec	2,483,413	313,371	131,274	46,041	2,974,099
Ontario	4,093,730	929,110	157,078	—	5,179,918
Manitoba	512,733	208,199	18,481	75	739,488
Saskatchewan	387,260	301,245	8,391	264	697,160
Alberta	1,289,040	393,801	46,446	—	1,729,287
British Columbia	1,468,413	626,743	79,876	—	2,175,032
Yukon	7,302	12,459	718	—	20,479
Northwest Territories	8,953	13,121	1,030	167	23,271
Canada	11,118,071	3,148,528	487,923	64,103	14,818,625

<sup>1</sup> Includes taxis and rent-a-car.<sup>2</sup> Includes other types of motor vehicles, in certain provinces or territories, while certain classes of trucks and/or buses have been included under passenger cars in five provinces.<sup>3</sup> Includes ambulances, fire trucks and some government vehicles.**13.11 Sales of motive fuels, by province, 1981-85 (thousand litres)**

Item and province or territory	1981	1982	1983	1984	1985
Gasoline					
Newfoundland	587 102	554 494	530 739	527 142	519 744
Prince Edward Island	171 334	160 443	161 033	162 324	161 676
Nova Scotia	1 141 143	1 064 328	1 031 980	1 042 846	1 034 691
New Brunswick	1 070 849	984 738	910 107	932 209	900 979
Quebec	8 104 580	7 069 814	6 746 929	6 648 779	6 582 028
Ontario	12 610 161	11 575 917	..	..	..
Manitoba	1 323 693	1 260 096	1 272 107	1 280 468	1 292 978
Saskatchewan	1 460 263	414 474 <sup>1</sup>	2	2	2
Alberta	..	..	..	..	..
British Columbia	4 224 698	3 808 971	3 635 060	3 597 797	3 491 291
Yukon	57 873	51 335	52 149	53 237	53 067
Northwest Territories	30 805	44 443	43 001	34 589	33 238
Total, net sales	30 782 502	26 989 053	14 383 103	14 279 392	14 069 693
Total, gross sales	36 896 458 <sup>2</sup>	32 583 705 <sup>2</sup>	19 446 083 <sup>3</sup>	19 320 729 <sup>3</sup>	18 953 484 <sup>3</sup>

**13.11 Sales of motive fuels, by province, 1981-85 (thousand litres) (concluded)**

Item and province or territory	1981	1982	1983	1984	1985
Diesel oil					
Total, net sales	5 269 933	3 854 655	2 710 483	2 936 168	3 220 870
Liquefied petroleum gases					
Total, net sales	20 203	22 076	23 803	34 007	42 447

<sup>1</sup> This figure represents 1982 sales up to April 1, 1982 when Saskatchewan removed road tax.

<sup>2</sup> Road tax removed (Alberta - April 1, 1978; Saskatchewan - April 1982).

<sup>3</sup> Includes Alberta gross sales.

**13.12 Canadian intercity bus industry, 1980-84**

Year and item		Classes 1 and 2 (\$500,000 and over)	Class 3 (\$100,000 - 499,999)	Classes 4, 5 and unknown (under \$100,000)	Total, all classes
<b>1980</b>					
Establishments reporting	No.	19	15	20	54
Total operating revenue	\$'000	265,607	3,946	885	270,438
Number of employees (including working owners)	No.	5,612	150	54	5,816
Equipment operated					
Highway buses	"	1,329	78	17	1,424
Urban and suburban buses	"	337	5	6	348
School buses	"	33	20	9	62
Other equipment	"	2	1	5	8
Total, equipment	"	1,701	104	37	1,842
Fare passengers carried	'000	32,846	437	—	33,282
Total vehicle-kilometres travelled	'000	199 496	3 623	—	203 119
<b>1981</b>					
Establishments reporting	No.	19	12	19	50
Total operating revenue	\$'000	273,623	2,882	871	277,377
Number of employees (including working owners)	No.	5,372	81	38	5,491
Equipment operated					
Highway buses	"	1,363	42	13	1,418
Urban and suburban buses	"	242	7	8	257
School buses	"	35	11	1	47
Other equipment	"	2	2	7	11
Total, equipment	"	1,642	62	29	1,733
Fare passengers carried	'000	29,215	370	—	29,585
Total vehicle-kilometres travelled	'000	182 843	2 171	—	185 014
<b>1982</b>					
Establishments reporting	No.	20	12	1	32
Total operating revenue	\$'000	323,513	3,829	1	327,342
Number of employees (including working owners)	No.	5,584	108	1	5,692
Equipment operated					
Highway buses	"	1,346	25	1	1,371
Urban and suburban buses	"	225	21	1	246
School buses	"	39	20	1	59
Other equipment	"	1	6	1	7
Total, equipment	"	1,611	72	1	1,683
Fare passengers carried	'000	29,772	1,415	1	31,187
Total vehicle-kilometres travelled	'000	195 104	2 734	1	197 838

## 13.12 Canadian intercity bus industry, 1980-84 (concluded)

Year and item		Classes 1 and 2 (\$500,000 and over)	Class 3 (\$100,000 - 499,999)	Classes 4, 5 and unknown (under \$100,000)	Total, all classes
1983					
Establishments reporting	No.	20	13	1	33
Total operating revenue	\$'000	340,241	2,706	1	342,947
Number of employees (including working owners)	No.	5,406	64	1	5,470
Equipment operated					
Highway buses	"	1,238	32	1	1,270
Urban and suburban buses	"	200	5	1	205
School buses	"	38	5	1	43
Other equipment	"	—	8	1	8
Total, equipment	"	1,476	50	1	1,526
Fare passengers carried	'000	31,853	179	1	32,032
Total vehicle-kilometres travelled	'000	192 877	1 512	1	194 389
1984					
Establishments reporting	No.	20	18	1	38
Total operating revenue	\$'000	315,378	6,979	1	322,357
Number of employees (including working owners)	No.	4,851	154	1	5,005
Equipment operated					
Highway buses	"	1,209	51	1	1,260
Urban and suburban buses	"	191	20	1	211
School buses	"	49	22	1	71
Other equipment	"	5	11	1	16
Total, equipment	"	1,454	104	1	1,558
Fare passengers carried	'000	27,306	528	1	27,834
Total vehicle-kilometres travelled	'000	179 169	3 604	1	182 773

<sup>1</sup> To reduce response burden, establishments earning less than \$100,000 annually were not surveyed effective survey year 1982.

## 13.13 Canadian urban transit industry, 1980-84

Year and item		Classes 1 and 2 (\$500,000 and over)	Class 3 (\$100,000 - 499,999)	Classes 4, 5 and unknown (under \$100,000)	Total, all classes
1980					
Establishments reporting	No.	60	9	7	76
Total operating revenue	\$'000	1,060,569	3,270	378	1,064,217
Number of employees (including working owners)	No.	32,558	139	22	32,719
Equipment operated					
Highway buses	"	95	3	—	98
Urban and suburban buses	"	9,778	55	11	9,844
School buses	"	315	12	4	331
Other equipment	"	2,404	8	—	2,412
Total, equipment	"	12,592	78	15	12,865
Fare passengers carried	'000	1,304,309	2,890	—	1,307,199
Total, vehicle kilometres	'000	653 277	2 968	—	656 245
1981					
Establishments reporting	No.	60	9	6	75
Total operating revenue	\$'000	1,298,638	3,451	756	1,302,845
Number of employees (including working owners)	No.	33,362	139	37	33,538
Equipment operated					
Highway buses	"	65	4	—	69
Urban and suburban buses	"	10,019	54	13	10,086
School buses	"	212	17	8	237
Other equipment	"	2,485	—	1	2,486
Total, equipment	"	12,781	75	22	12,878



**13.13 Canadian urban transit industry, 1980-84 (concluded)**

Year and item		Classes 1 and 2 (\$500,000 and over)	Class 3 (\$100,000 - 499,999)	Classes 4, 5 and unknown (under \$100,000)	Total, all classes
Fare passengers carried	'000	1,367,121	1,749	—	1,368,870
Total, vehicle kilometres	'000	696 255	2 603	—	698 858
1982					
Establishments reporting	No.	63	10	1	73
Total operating revenue	\$'000	1,465,327	4,644	1	1,469,971
Number of employees (including working owners)	No.	33,822	149	1	33,971
Equipment operated					
Highway buses	"	149	7	1	156
Urban and suburban buses	"	10,377	50	1	10,427
School buses	"	212	38	1	250
Other equipment	"	2,485	—	1	2,485
Total, equipment	"	13,223	95	1	13,318
Fare passengers carried	'000	1,331,650	1,471	1	1,333,121
Total, vehicle kilometres	'000	710 437	1 877	1	712 314
1983					
Establishments reporting	No.	63	14	1	77
Total operating revenue	\$'000	1,593,747	6,665	1	1,600,412
Number of employees (including working owners)	No.	33,514	204	1	33,718
Equipment operated					
Highway buses	"	151	12	1	163
Urban and suburban buses	"	10,291	79	1	10,370
School buses	"	165	9	1	174
Other equipment	"	2,526	—	1	2,526
Total, equipment	"	13,133	100	1	13,233
Fare passengers carried	'000	1,380,072	2,835	1	1,382,907
Total, vehicle kilometres	'000	717 777	3 606	1	721 383
1984					
Establishments reporting	No.	66	7	1	73
Total operating revenue	\$'000	1,687,390	3,509	1	1,690,899
Number of employees (including working owners)	No.	34,365	94	1	34,459
Equipment operated					
Highway buses	"	172	3	1	175
Urban and suburban buses	"	10,299	34	1	10,333
School buses	"	183	19	1	202
Other equipment	"	2,502	—	1	2,502
Total, equipment	"	13,156	56	1	13,212
Fare passengers carried	'000	1,411,438	2,237	1	1,413,676
Total, vehicle kilometres	'000	689 601	1 772	1	691 373

To reduce response burden, establishments earning less than \$100,000 annually were not surveyed effective survey year 1982.

**3.14 Commodities transported by motor carriers, by mass, 1979-84 (thousand tonnes)**

Commodity	1979	1980	1981	1982	1983	1984
Live animals	1 713	2 123	1 823	1 759	1 876	1 792
Food, feed, beverages and tobacco						
Meat, poultry and fish	1 195	1 289	1 045	1 236	1 065	1 552
Dairy products	4 041	5 989	4 509	5 003	4 931	4 808
Grains	1 629	2 215	3 346	2 814	3 507	3 284
Milled cereals and cereal products	698	716	973	567	591	321
Fruits, vegetables and nuts	1 702	1 545	2 169	2 365	2 543	2 505
Other food and food preparations	4 137	5 778	5 706	5 864	6 039	6 843

**13.14 Commodities transported by motor carriers, by mass, 1979-84 (thousand tonnes) (concluded)**

Commodity	1979	1980	1981	1982	1983	1984
Food, feed, beverages and tobacco (cont'd)						
Animal feed	1 452	989	1 402	1 844	1 553	1 765
Beverages	2 286	1 802	2 633	2 692	2 826	2 571
Tobacco and tobacco products	344	351	350	246	189	202
Sub-total, food, feed, beverages and tobacco	17 484	20 674	22 133	22 631	23 244	23 85
Crude materials, inedible						
Crude animal and vegetable materials	1 774	2 377	1 263	1 372	1 397	1 268
Logs and bolts	4 394	2 612	3 463	4 868	4 088	9 050
Pulpwood (roundwood and chips)	6 947	3 654	5 495	4 428	4 302	7 571
Other crude wood materials	117	706	200	218	1 649	460
Textile fibres	96	83	128	93	167	382
Iron ores and concentrates	1 537	2 067	365	87	260	787
Other metal-bearing ores and concentrates	715	197	975	412	1 029	2 417
Crude mineral oils	560	369	4 582	4 828	4 536	4 242
Sand, gravel and crushed stone	15 236	8 897	17 741	17 300	23 412	22 203
Other crude non-metallic minerals	4 759	3 105	3 443	5 349	4 293	7 108
Waste and scrap materials	1 502	1 032	1 280	1 518	2 547	2 596
Sub-total, crude materials, inedible	37 637	25 099	38 935	40 473	47 680	58 084
Fabricated materials, inedible						
Lumber and sawn timber	4 566	6 208	5 676	6 253	8 110	5 103
Other wood fabricated materials	2 071	3 494	2 002	2 013	339	2 485
Wood pulp	481	837	1 595	594	638	174
Paper for printing	2 164	2 660	1 480	2 022	2 070	2 343
Other paper and paperboard	440	246	661	538	957	669
Chemicals and chemical specialties	6 391	7 848	6 482	6 843	7 066	8 326
Gasoline	4 855	5 786	4 644	3 643	4 262	4 228
Fuel oil	8 316	6 651	5 883	5 008	5 849	5 124
Other petroleum and coal products	5 982	7 382	3 497	4 940	5 350	4 541
Primary iron, steel and basic products	7 798	6 691	8 617	5 737	6 625	8 419
Other metal alloys and primary metal products	3 081	3 156	2 645	2 373	3 299	3 395
Cement and concrete basic products	6 410	6 197	7 081	5 218	4 565	5 745
Other non-metallic mineral basic products	2 950	3 087	5 734	5 402	4 519	5 452
Other fabricated materials	1 586	1 508	1 057	835	223	193
Sub-total, fabricated materials, inedible	57 091	61 751	57 054	51 419	53 872	56 197
End products, inedible						
Drilling, excavating, mining, oil and gas machinery	3 920	2 290	2 403	3 921	2 597	1 986
Road motor vehicles and parts	3 717	2 616	2 989	3 080	3 919	4 289
Other end products	10 353	9 941	10 228	8 244	9 814	9 562
Sub-total, end products, inedible	17 990	14 847	15 620	15 245	16 330	15 837
Goods not classified by commodity						
Containers and closures, full	1 709	1 681	1 207	1 408	1 452	1 996
General freight	3 203	2 913	3 020	4 135	4 323	4 068
Other unclassified	395	415	770	815	535	214
Sub-total, goods not classified by commodity	5 307	5 009	4 997	6 358	6 310	6 278
Total	137 222	129 503	140 562	137 885	149 312	162 039

**13.15 Canadian for-hire trucking industry<sup>1</sup>, excluding household-goods movers, 1980-84**

Establishments by province or region	1980	1981	1982	1983	1984
Atlantic provinces					
Number of establishments	348	331	321	303	363
Net operating revenues \$'000	16,354	20,227	19,547	21,248	24,813
Employees <sup>2</sup> Av. No.	5,143	4,881	4,764	4,642	4,610
Equipment					
Trucks No.	1,315	1,157	1,071	971	976
Tractors	1,820	1,735	1,689	1,738	1,768
Semi-trailers	3,878	3,674	3,763	4,013	4,092
Full-trailers	119	180	116	83	132
Other equipment	210	230	244	258	228
Total, equipment	7,342	6,976	6,883	7,063	7,196

### 13.15 Canadian for-hire trucking industry<sup>1</sup>, excluding household-goods movers, 1980-84 (continued)

Establishments by province or region		1980	1981	1982	1983	1984
<b>Quebec</b>						
Number of establishments		1,042	1,017	1,141	1,046	1,290
Net operating revenues	\$'000	32,424	23,822	3,364	20,905	62,895
Employees <sup>2</sup>	Av. No.	25,836	22,307	19,660	17,493	16,601
Equipment						
Trucks	No.	6,924	5,874	5,350	4,832	4,323
Tractors	"	7,864	7,299	6,359	6,169	6,340
Semi-trailers	"	15,097	13,924	12,629	13,123	12,898
Full-trailers	"	540	533	755	675	947
Other equipment	"	1,038	849	1,079	1,193	1,321
Total, equipment	"	31,463	28,479	26,172	25,992	25,829
<b>Ontario</b>						
Number of establishments		1,122	1,075	1,154	1,106	1,164
Net operating revenues	\$'000	64,800	89,453	41,955	88,372	116,242
Employees <sup>2</sup>	Av. No.	36,531	35,745	33,041	33,539	37,128
Equipment						
Trucks	No.	7,190	7,067	6,732	6,587	7,158
Tractors	"	14,332	13,549	12,782	13,142	13,999
Semi-trailers	"	33,006	30,188	31,486	32,470	34,876
Full-trailers	"	456	472	597	598	868
Other equipment	"	1,753	1,723	1,874	2,147	2,577
Total, equipment	"	56,737	52,999	53,471	54,944	59,478
<b>Manitoba</b>						
Number of establishments		174	169	164	159	188
Net operating revenues	\$'000	14,543	15,894	12,802	17,431	19,303
Employees <sup>2</sup>	Av. No.	5,324	5,428	5,509	5,301	5,647
Equipment						
Trucks	No.	978	934	753	698	738
Tractors	"	2,090	2,238	2,158	2,169	2,018
Semi-trailers	"	5,940	6,614	7,374	7,256	7,614
Full-trailers	"	71	58	56	33	62
Other equipment	"	629	1,009	822	877	1,185
Total, equipment	"	9,708	10,853	11,163	11,033	11,617
<b>Saskatchewan</b>						
Number of establishments		175	174	194	182	197
Net operating revenues	\$'000	5,526	4,184	7,397	8,968	10,217
Employees <sup>2</sup>	Av. No.	1,820	1,833	1,994	1,928	2,185
Equipment						
Trucks	No.	383	406	465	448	530
Tractors	"	841	795	920	874	939
Semi-trailers	"	1,667	1,699	1,969	1,935	1,983
Full-trailers	"	34	38	18	116	165
Other equipment	"	27	13	76	61	48
Total, equipment	"	2,952	2,951	3,448	3,434	3,665
<b>Alberta</b>						
Number of establishments		806	739	895	796	798
Net operating revenues	\$'000	61,773	53,051	46,402	47,264	53,338
Employees <sup>2</sup>	Av. No.	12,835	11,066	11,154	9,902	9,592
Equipment						
Trucks	No.	2,505	2,182	2,298	2,170	2,092
Tractors	"	5,104	4,469	4,367	4,081	4,072
Semi-trailers	"	11,071	10,036	10,775	10,631	9,576
Full-trailers	"	252	475	535	622	1,495
Other equipment	"	670	556	544	872	597
Total, equipment	"	19,602	17,718	18,519	18,376	17,832
<b>British Columbia</b>						
Number of establishments		639	628	660	613	797
Net operating revenues	\$'000	32,750	30,029	14,332	22,026	30,537
Employees <sup>2</sup>	Av. No.	11,196	11,329	9,344	7,715	7,853
Equipment						
Trucks	No.	2,513	2,540	2,190	1,941	2,014
Tractors	"	3,486	3,671	3,369	2,938	3,051
Semi-trailers	"	7,185	7,918	7,526	6,787	7,069
Full-trailers	"	209	316	235	242	700
Other equipment	"	352	447	421	381	259
Total, equipment	"	13,745	14,892	13,741	12,289	13,093

### 13.15 Canadian for-hire trucking industry<sup>1</sup>, excluding household-goods movers, 1980-84 (concluded)

Establishments by province or region		1980	1981	1982	1983	1984
Yukon and Northwest Territories						
Number of establishments		14	12	12	4	9
Net operating revenues	\$'000	345	149	716	154	507
Employees <sup>2</sup>	Av. No.	101	111	89	26	73
Equipment						
Trucks	No.	23	24	15	3	22
Tractors	"	45	40	44	16	24
Semi-trailers	"	93	70	62	28	59
Full-trailers	"	—	—	—	—	4
Other equipment	"	—	—	5	—	—
Total, equipment	"	161	134	126	47	109
Canada						
Number of establishments		4,320	4,145	4,541	4,209	4,806
Net operating revenues	\$'000	163,667	189,163	139,787	226,368	317,852
Employees <sup>2</sup>	Av. No.	98,786	92,700	85,555	80,546	83,689
Equipment						
Trucks	No.	21,831	20,184	18,874	17,650	17,853
Tractors	"	35,582	33,796	31,688	31,127	32,211
Semi-trailers	"	77,937	74,123	75,584	76,243	78,167
Full-trailers	"	1,681	2,072	2,312	2,369	4,373
Other equipment	"	4,679	4,827	5,065	5,789	6,215
Total, equipment	"	141,710	135,002	133,523	133,178	138,819

<sup>1</sup> Revenue classes 1, 2 and 3 only.<sup>2</sup> Including working owners.

### 13.16 Canadian for-hire trucking industry, excluding household-goods movers, by revenue class, 1980-84

Year and item		Class 1 (\$2,000,000 and over)	Class 2 (\$500,000 – 1,999,999)	Class 3 (\$100,000 – 499,999)	Total, all classes
1980					
Establishments reporting	No.	372	864	3,084	4,320
Total operating revenue	\$'000	3,503,568	936,715	783,521	5,223,804
Equipment operated					
Straight trucks	No.	9,167	4,605	8,059	21,831
Truck tractors	"	22,220	7,531	5,831	35,582
Trailers (semi- and full-)	"	58,386	13,549	7,683	79,618
Other equipment	"	3,916	666	97	4,679
Total, equipment	"	93,689	26,351	21,670	141,710
1981					
Establishments reporting	No.	411	917	2,817	4,145
Total operating revenue	\$'000	3,991,912	972,598	722,605	5,687,115
Equipment operated					
Straight trucks	No.	8,989	4,432	6,763	20,184
Truck tractors	"	21,740	7,171	4,885	33,796
Trailers (semi- and full-)	"	56,774	12,832	6,589	76,195
Other equipment	"	4,060	662	105	4,827
Total, equipment	"	91,563	25,097	18,342	135,002
1982					
Establishments reporting	No.	414	963	3,164	4,541
Total operating revenue	\$'000	3,874,471	964,482	749,570	5,558,523
Equipment operated					
Straight trucks	No.	8,414	4,147	6,313	18,874
Truck tractors	"	20,013	6,677	4,998	31,688
Trailers (semi- and full-)	"	58,740	12,494	6,662	77,896
Other equipment	"	4,096	860	109	5,065
Total, equipment	"	91,263	24,178	18,082	133,523



### 13.16 Canadian for-hire trucking industry, excluding household-goods movers, by revenue class, 1980-84 (concluded)

Year and item		Class 1 (\$2,000,000 and over)	Class 2 (\$500,000 - 1,999,999)	Class 3 (\$100,000 - 499,999)	Total, all classes
1983					
Establishments reporting	No.	420	985	2,804	4,209
Total operating revenue	\$'000	4,087,338	1,018,858	646,801	5,752,998
Equipment operated					
Straight trucks	No.	8,153	4,233	5,264	17,650
Truck tractors	"	20,203	6,588	4,336	31,127
Trailers (semi- and full-)	"	60,354	12,375	5,883	78,612
Other equipment	"	4,905	780	104	5,789
Total, equipment	"	93,615	23,976	15,587	133,178
1984					
Establishments reporting	No.	436	981	3,389	4,806
Total operating revenue	\$'000	4,806,573	1,104,905	827,474	6,738,952
Equipment operated					
Straight trucks	No.	7,997	3,939	5,917	17,853
Truck tractors	"	20,792	6,572	4,847	32,211
Trailers (semi- and full-)	"	64,112	12,047	6,381	82,540
Other equipment	"	5,304	797	114	6,215
Total, equipment	"	98,205	23,355	17,259	138,819

### 13.17 Canadian for-hire trucking industry, excluding household-goods movers, by major type of service, 1980-84

Year and item		General freight	Bulk liquids	Dump (sand, gravel, snow)	Forest products	Other commodities	Total
1980							
Establishments operating	No.	1,399	425	658	754	1,084	4,320
Total operating revenue	\$'000	2,797,924	309,973	206,183	368,700	1,541,025	5,223,805
Total operating expenses	"	2,769,977	281,551	194,412	347,641	1,466,561	5,060,142
Net operating revenue	"	27,947	28,422	11,771	21,059	74,464	163,663
Average number of employees (including working owners)	No.	60,643	4,767	3,783	5,265	22,148	96,606
Equipment operated							
Trucks	"	14,222	1,419	1,951	993	3,246	21,831
Tractors	"	19,072	1,777	1,305	2,615	10,813	35,582
Semi-trailers	"	46,597	2,846	1,631	3,801	23,062	77,937
Other equipment, including full-trailers	"	3,601	202	183	300	2,074	6,360
Total, equipment	"	83,492	6,244	5,070	7,709	39,195	141,710
1981							
Establishments operating	No.	1,345	408	593	770	1,029	4,145
Total operating revenue	\$'000	3,092,813	319,927	217,280	337,116	1,719,978	5,687,114
Total operating expenses	"	3,037,247	293,155	206,589	318,733	1,642,226	5,497,950
Net operating revenue	"	55,566	26,772	10,691	18,383	77,752	189,164
Average number of employees (including working owners)	No.	56,964	4,526	3,418	4,512	21,362	90,782
Equipment operated							
Trucks	"	13,129	1,284	1,741	933	3,097	20,184
Tractors	"	18,284	1,788	1,128	2,316	10,280	33,796
Semi-trailers	"	43,590	2,923	1,380	3,029	23,201	74,123
Other equipment, including full-trailers	"	3,720	194	210	308	2,467	6,899
Total, equipment	"	78,723	6,189	4,459	6,586	39,045	135,002
1982							
Establishments operating	No.	1,313	469	690	931	1,138	4,541
Total operating revenue	\$'000	3,002,553	380,979	217,633	355,171	1,632,188	5,588,524
Total operating expenses	"	2,988,470	348,328	205,460	336,533	1,569,945	5,448,736
Net operating revenue	"	14,083	32,651	12,173	18,638	62,243	139,788
Average number of employees (including working owners)	No.	51,050	5,430	3,471	4,570	19,468	83,989
Equipment operated							
Trucks	"	11,714	1,370	1,742	935	3,113	18,874
Tractors	"	16,672	2,063	1,281	2,547	9,125	31,688
Semi-trailers	"	44,560	3,357	1,525	3,827	22,315	75,584
Other equipment, including full-trailers	"	4,636	178	227	333	2,003	7,377
Total, equipment	"	77,582	6,968	4,775	7,642	36,556	133,523

### 13.17 Canadian for-hire trucking industry, excluding household-goods movers, by major type of service, 1980-84 (concluded)

Year and item		General freight	Bulk liquids	Dump (sand, gravel, snow)	Forest products	Other commodities	Total
1983							
Establishments operating	No.	1,234	452	589	882	1,052	4,209
Total operating revenue	\$'000	3,165,686	390,353	182,460	381,729	1,632,770	5,752,998
Total operating expenses	"	3,104,561	353,218	170,411	356,430	1,542,011	5,526,630
Net operating revenue	"	61,125	37,135	12,048	25,300	90,759	226,367
Average number of employees (including working owners)	No.	49,623	5,346	2,995	4,447	18,135	80,546
Equipment operated							
Trucks	"	11,215	1,367	1,624	769	2,675	17,650
Tractors	"	16,655	2,103	1,055	2,460	8,854	31,127
Semi-trailers	"	46,221	3,792	1,350	3,670	21,210	76,243
Other equipment, including full-trailers	"	4,770	307	323	331	2,427	8,158
Total, equipment	"	78,861	7,569	4,352	7,230	35,166	133,178
1984							
Establishments operating	No.	1,294	491	661	1,213	1,147	4,806
Total operating revenue	\$'000	3,783,138	478,997	253,679	503,475	1,719,663	6,738,952
Total operating expenses	"	3,672,672	437,118	237,594	462,417	1,611,299	6,421,100
Net operating revenue	"	110,466	41,879	16,085	41,058	108,364	317,852
Average number of employees (including working owners)	No.	52,159	5,679	3,468	5,266	17,117	83,689
Equipment operated							
Trucks	"	11,095	1,383	1,708	982	2,685	17,853
Tractors	"	17,164	2,102	1,273	2,980	8,692	32,211
Semi-trailers	"	49,024	3,785	1,726	3,989	19,643	78,167
Other equipment, including full-trailers	"	6,996	297	365	634	2,296	10,588
Total, equipment	"	84,279	7,567	5,072	8,585	33,316	138,819

### 13.18 Motor carriers of freight<sup>1</sup> (MCF) and private trucking<sup>2</sup> (PT), comparative summary statistics, 1984

Item		Newfoundland		Prince Edward Island		Nova Scotia		New Brunswick		Quebec	
		MCF	PT	MCF	PT	MCF	PT	MCF	PT	MCF	PT
Reports received	No.	65	73	22	21	135	218	141	91	1,290	738
Equipment operated											
Trucks	"	221	2,248	57	241	402	3,830	296	2,495	4,323	20,204
Tractors	"	228	151	81	39	662	412	797	263	6,340	3,028
Trailers	"	423	286	83	66	1,153	756	2,565	515	13,845	5,804
Equipment, total	"	872	2,685	221	346	2,217	4,998	3,658	3,273	24,508	29,036
Vehicle distance run <sup>3</sup>	'000 km	25 847	..	8 513	..	66 514	..	87 202	..	750 931	..
Fuel consumed											
Gasoline	'000 L	2 007	17 136	533	1 023	4 014	20 567	3 390	12 946	42 707	102 484
Diesel	"	12 856	17 609	3 783	1 917	31 606	25 298	43 667	21 186	369 492	194 848
Propane	"	—	1	—	—	—	934	144	844	869	2 567
Fuel, total	"	14 863	34 746	4 316	2 940	35 620	46 799	47 201	34 976	413 068	299 899
Fuel cost	\$'000	7,263	17,199	2,274	1,339	16,529	21,907	21,688	16,106	176,606	137,980
		Ontario		Manitoba		Saskatchewan		Alberta			
		MCF	PT	MCF	PT	MCF	PT	MCF	PT		
Reports received	No.	1,164	863	188	91	197	117	798	443		
Equipment operated											
Trucks	"	7,158	30,233	738	3,015	530	4,545	2,092	19,385		
Tractors	"	13,999	5,522	2,018	464	939	455	4,072	1,475		
Trailers	"	35,744	13,466	7,676	776	2,148	1,164	11,071	3,363		
Equipment, total	"	56,901	49,221	10,432	4,255	3,617	6,164	17,235	24,223		
Vehicle distance run <sup>3</sup>	'000 km	1 248 263	..	206 488	..	107 699	..	479 085	..		

### 13.18 Motor carriers of freight<sup>1</sup> (MCF) and private trucking<sup>2</sup> (PT), comparative summary statistics, 1984 (concluded)

		Ontario		Manitoba		Saskatchewan		Alberta	
		MCF	PT	MCF	PT	MCF	PT	MCF	PT
Fuel consumed									
Gasoline	'000 L	59 971	141 435	6 107	14 738	4 897	22 777	15 952	92 472
Diesel	"	602 640	356 081	102 648	22 898	52 566	29 105	243 187	105 777
Propane	"	9 986	34 463	646	2 564	108	1 185	2 702	14 770
Fuel, total	"	672 597	531 979	109 401	40 200	57 571	53 067	261 841	213 019
Fuel cost	\$'000	266,636	221,616	40,764	16,444	21,580	21,469	88,370	83,162
		British Columbia		Yukon		Northwest Territories		Canada	
		MCF	PT	MCF	PT	MCF	PT	MCF	PT
Reports received	No.	797	262	4	12	5	25	4,806	2,954
Equipment operated									
Trucks	"	2,014	14,333	3	146	19	307	17,853	100,982
Tractors	"	3,051	851	12	12	12	75	32,211	12,747
Trailers	"	7,769	1,872	26	15	37	184	82,540	28,267
Equipment, total	"	12,834	17,056	41	173	68	566	132,604	141,996
Vehicle distance run <sup>3</sup>	'000 km	289 190	..	832	..	1 128	..	3 271 692	3 458 246
Fuel consumed									
Gasoline	'000 L	12 444	59 547	18	594	—	1 807	152 040	487 526
Diesel	"	141 406	80 981	461	554	613	4 154	1 604 925	860 408
Propane	"	2 191	4 974	—	—	—	13	16 646	62 315
Fuel, total	"	156 041	145 502	479	1 148	613	5 974	1 773 611	1 410 249
Fuel cost	\$'000	66,021	63,095	228	577	298	3,122	708,257	604,016

<sup>1</sup> For-hire carriers with \$100,000 or more annual gross operating revenue from trucking operations.

<sup>2</sup> Operators of trucking equipment having a fleet of 15 or more trucks, tractors and trailers, whose principal activity is other than for-hire trucking, and having dedicated drivers.

<sup>3</sup> Complete provincial and territorial breakdown unavailable for private trucking.

### 13.19 Vessels entered at Canadian ports, 1980-85

Year	In international seaborne shipping		In coastwise shipping		Total	
	Vessels	Net register tons <sup>1</sup>	Vessels	Net register tons <sup>1</sup>	Vessels	Net register tons <sup>1</sup>
1980	28,754	168,477,033	38,015	87,846,321	66,769	256,323,354
1981	25,321	170,404,933	34,271	81,637,381	59,592	252,042,314
1982	24,791	152,476,124	29,148	74,965,550	53,939	227,441,674
1983	26,100	158,990,860	30,363	98,409,171	56,463	257,400,031
1984	22,515	168,783,972	28,868	90,050,658	51,383	258,834,630
1985	26,555	167,701,297	27,228	79,243,728	53,783	246,945,025

The capacity of the spaces within the hull, and the enclosed spaces above the deck, available for cargo and passengers; excluding spaces used for the accommodation of officers and crew, navigation, propelling machinery and fuel. A register ton is equivalent to 100 cu ft and it is expected that this internationally recognized measure, like the nautical mile and the knot, will continue in use for some considerable time.

### 13.20 Cargoes loaded and unloaded at principal Canadian ports, by province, 1985, with totals for 1982-85 (thousand tonnes)

Province and port	International		Coastwise		Total			
	Loaded	Unloaded	Loaded	Unloaded	1985	1984	1983	1982
NEWFOUNDLAND	1 295.6	1 104.6	243.3	2 351.4	4 995.0	4 591.6	4 744.5	4 832.3
St. John's	25.2	68.2	96.2	820.0	1 009.6	889.5	913.0	961.1
Holyrood	—	388.3	—	227.2	615.5	343.6	431.3	690.3
Long Harbour	40.6	521.1	17.5	4.7	583.9	683.4	621.7	498.2
Corner Brook	230.7	11.5	3.3	289.7	535.3	485.0	500.2	570.7
Bowwood	197.4	0.2	1.0	151.5	350.1	377.3	332.6	386.7

### 13.20 Cargoes loaded and unloaded at principal Canadian ports, by province, 1985, with totals for 1982-85 (thousand tonnes) (concluded)

Province and port	International		Coastwise		Total			
	Loaded	Unloaded	Loaded	Unloaded	1985	1984	1983	1982
PRINCE EDWARD ISLAND	66.6	9.6	—	598.0	674.3	627.3	718.4	571.8
Charlottetown	26.0	5.3	—	441.7	473.0	459.6	561.0	400.7
NOVA SCOTIA	8 386.1	5 679.4	4 239.9	2 065.5	20 370.9	19 844.2	18 216.0	16 369.4
Halifax	4 105.9	5 393.5	2 871.2	1 327.1	13 697.8	12 804.1	11 330.4	10 100.0
Sydney	587.5	91.5	71.3	432.7	1 183.0	1 372.3	1 677.4	1 568.1
Port Hawkesbury	1 441.7	151.7	100.6	144.9	1 838.8	2 153.5	1 897.2	1 451.7
Hantsport	1 439.5	8.9	—	—	1 448.4	1 481.3	1 395.8	1 243.9
NEW BRUNSWICK	3 422.5	4 879.1	1 082.4	902.5	10 286.5	10 703.7	9 905.3	10 399.2
Saint John	2 580.2	3 962.2	1 074.7	561.5	8 178.7	9 323.3	8 280.9	8 739.1
QUEBEC	52 142.0	18 988.1	12 780.4	19 228.5	103 139.0	111 772.8	103 553.2	103 216.8
Sept-Îles-Pointe-Noire	17 599.0	714.7	3 474.3	544.1	22 332.1	23 163.9	20 165.9	18 821.9
Port-Cartier	17 345.1	1 203.5	1 073.6	2 175.4	21 797.7	21 748.9	18 097.7	22 928.6
Montreal <sup>1</sup>	5 910.1	5 957.2	2 592.3	4 727.3	19 186.9	21 944.7	21 093.6	19 105.5
Quebec City <sup>2</sup>	4 037.1	1 788.7	829.1	3 703.8	10 358.7	12 577.7	12 044.5	14 411.2
Baie Comeau	3 028.4	1 096.1	244.3	2 243.6	6 612.5	7 738.8	8 495.8	8 079.6
Sorel	1 622.3	335.5	56.3	2 870.3	4 884.4	4 356.5	5 644.4	4 621.9
Lévis	281.0	3 501.8	529.8	33.9	4 346.6	4 987.1	3 370.6	2 885.6
Port-Alfred	225.3	2 749.5	—	97.5	3 072.4	3 703.2	3 705.1	3 785.5
Havre Saint-Pierre	323.2	—	2 506.2	10.9	2 840.4	1 988.2	2 092.4	1 790.2
Trois-Rivières	975.4	361.9	23.5	700.8	2 061.7	3 116.6	2 984.7	2 257.9
ONTARIO	9 828.4	24 199.1	22 164.5	15 293.6	71 485.5	81 732.3	74 290.3	67 501.3
Thunder Bay	2 833.2	135.7	13 958.4	429.1	17 356.4	23 475.1	23 863.3	22 339.2
Hamilton	381.8	5 308.9	167.9	4 447.3	10 305.9	12 373.2	9 235.6	7 927.8
Nanticoke	261.3	5 976.4	236.6	2 238.2	8 712.5	11 215.9	8 676.1	8 256.7
Sarnia-Courtright	1 445.4	2 976.1	1 395.7	330.3	6 147.5	7 152.6	7 891.7	6 610.9
Sault Ste Marie	165.5	4 569.4	136.0	389.7	5 260.6	4 735.1	4 878.2	3 401.6
Windsor-Walkerville	1 250.9	813.2	929.4	427.0	3 420.5	3 293.3	2 998.3	3 106.5
Clarkson	347.8	171.1	89.4	2 609.1	3 217.5	2 241.1	1 402.5	1 443.4
Toronto	64.5	825.7	56.4	769.8	1 716.5	1 897.2	1 678.7	1 571.1
Goderich	690.7	—	657.4	222.1	1 570.2	2 413.0	1 985.4	1 154.2
Colborne	591.5	111.5	91.8	355.0	1 149.7	2 146.2	1 359.6	730.7
Pictou	507.8	209.3	285.5	63.8	1 066.4	994.6	847.5	683.6
MANITOBA	359.0	—	21.4	—	380.5	465.7	646.6	587.4
Churchill	359.0	—	21.4	—	380.5	465.7	646.6	587.4
BRITISH COLUMBIA	67 920.5	5 807.8	21 152.5	21 121.4	116 002.2	112 854.0	106 405.0	101 866.3
Vancouver	48 849.5	3 029.7	2 237.0	2 111.9	56 228.2	59 072.0	55 089.0	56 228.2
Prince Rupert	9 275.4	16.6	364.9	308.2	9 965.1	8 173.4	3 319.5	2 044.4
New Westminster	1 155.5	1 346.4	1 353.0	1 656.2	5 511.1	5 481.8	4 545.7	3 966.3
Howe Sound	9.0	—	1 431.6	2 855.6	4 296.2	3 464.6	3 930.5	3 134.0
North Arm Fraser River	5.4	76.1	1 819.8	1 964.0	3 865.3	2 954.6	2 243.6	5 088.1
Nanaimo	1 187.4	62.0	143.0	1 227.7	2 620.2	2 310.1	2 441.1	2 592.2
Crofton	807.1	57.4	178.8	1 451.9	2 495.2	2 149.7	2 663.7	2 520.1
Duncan Bay-Campbell River	662.6	56.9	493.3	1 274.3	2 487.2	2 483.6	2 755.8	1 535.2
Kitimat	1 463.4	662.2	119.7	159.5	2 404.8	2 275.9	1 989.4	1 198.9
Powell River	297.9	91.3	313.0	820.7	1 522.9	1 263.4	1 503.3	1 526.8
Port Alberni	598.6	58.5	112.2	465.9	1 235.2	1 203.7	935.8	1 034.1
NORTHWEST TERRITORIES	—	0.9	32.3	155.9	189.2	199.6	506.9	429.4
Total	143 420.7	60 668.8	61 716.9	61 716.9	327 523.3	342 791.2	318 986.4	305 774.1

<sup>1</sup> Data for the port of Montreal exclude shipping activities at Contrecoeur.<sup>2</sup> Data for the port of Quebec exclude shipping activities at Lévis.

### 13.21 Principal commodities in water-borne cargo loaded and unloaded at ports handling large tonnage, 1985 (thousand tonnes)

Port and commodity	International		Coastwise		Total
	Loaded	Unloaded	Loaded	Unloaded	
Vancouver <sup>1</sup>					
Coal	18 150.4	—	53.6	1.4	18 205.4
Wheat	6 377.4	—	—	—	6 377.4
Sulphur	5 362.3	—	—	—	5 362.3
Potassium chloride (muriate of potash)	2 839.2	—	—	—	2 839.2
Other chemicals and related products	2 260.0	52.5	140.8	—	2 453.3



### 13.21 Principal commodities in water-borne cargo loaded and unloaded at ports handling large tonnage, 1985 (thousand tonnes) (continued)

Port and commodity	International		Coastwise		Total
	Loaded	Unloaded	Loaded	Unloaded	
Lumber and timber	2 006.0	15.3	77.7	113.8	2 212.8
Fuel oil	636.7	69.0	1 154.5	—	1 860.2
Wood pulp	1 416.7	12.7	62.1	—	1 491.5
Rapeseed	1 473.0	—	—	—	1 473.0
Barley	1 358.5	—	—	—	1 358.5
Gasoline	697.0	7.1	538.5	—	1 242.6
Pulp	809.8	—	1.0	345.4	1 156.2
Coke of petroleum and coal	1 105.0	12.1	17.7	—	1 134.8
Other commodities	4 357.3	2 861.0	191.1	1 651.3	9 060.7
<b>Total, Vancouver<sup>1</sup></b>	<b>48 849.5</b>	<b>3 029.7</b>	<b>2 237.0</b>	<b>2 111.9</b>	<b>56 228.1</b>
Sept-Îles-Pointe-Noire					
Iron ore, concentrates and scrap	17 182.9	—	3 454.1	—	20 637.0
Coal	334.4	349.9	11.8	—	696.1
Other commodities	81.8	364.8	8.4	544.1	999.1
<b>Total, Sept-Îles-Pointe-Noire</b>	<b>17 599.1</b>	<b>714.7</b>	<b>3 474.3</b>	<b>544.1</b>	<b>22 332.2</b>
Port-Cartier					
Iron ore, concentrates and scrap	14 401.3	2.0	1 040.1	—	15 443.4
Wheat	1 786.8	206.9	5.8	1 608.2	3 607.7
Corn	796.9	545.2	—	196.6	1 538.7
Other commodities	360.1	449.4	27.7	370.6	1 207.8
<b>Total, Port-Cartier</b>	<b>17 345.1</b>	<b>1 203.5</b>	<b>1 073.6</b>	<b>2 175.4</b>	<b>21 797.6</b>
Montreal <sup>2</sup>					
Wheat	1 896.3	—	—	2 358.4	4 254.7
Fuel oil	373.4	481.5	1 091.7	553.9	2 500.5
Crude petroleum	442.1	289.3	888.2	13.2	1 632.8
Other chemicals and related products	530.4	772.0	1.0	9.3	1 312.7
Gasoline	19.5	577.6	360.3	241.1	1 198.5
Other commodities	2 648.4	3 836.8	251.1	1 551.4	8 287.7
<b>Total, Montreal<sup>2</sup></b>	<b>5 910.1</b>	<b>5 957.2</b>	<b>2 592.3</b>	<b>4 727.3</b>	<b>19 186.9</b>
Thunder Bay					
Wheat	561.5	8.3	9 995.3	—	10 565.1
Coal	—	113.7	1 988.6	—	2 102.3
Potassium chloride (muriate of potash)	1 465.4	—	238.0	—	1 703.4
Barley	—	—	726.2	—	726.2
Iron ore, concentrates and scrap	—	—	483.3	—	483.3
Flaxseed	248.5	—	10.8	—	259.3
Other commodities	557.9	13.7	516.2	429.1	1 516.9
<b>Total, Thunder Bay</b>	<b>2 833.3</b>	<b>135.7</b>	<b>13 958.4</b>	<b>429.1</b>	<b>17 356.5</b>
Halifax					
Crude petroleum	—	3 704.0	—	753.9	4 457.9
Gypsum	2 474.5	—	505.1	—	2 979.6
Fuel oil	185.2	370.9	1 464.3	202.8	2 223.2
Gasoline	41.4	84.4	719.5	131.7	977.0
Other commodities	1 404.8	1 234.2	182.3	238.7	3 060.0
<b>Total, Halifax</b>	<b>4 105.9</b>	<b>5 393.5</b>	<b>2 871.2</b>	<b>1 327.1</b>	<b>13 697.7</b>
Quebec City <sup>3</sup>					
Wheat	2 296.7	27.0	5.7	2 189.2	4 518.6
Iron ore, concentrates and scrap	1 042.4	743.5	—	—	1 785.9
Fuel oil	27.4	100.6	533.9	165.8	827.7
Other commodities	670.7	917.6	289.5	1 348.8	3 226.6
<b>Total, Quebec City<sup>3</sup></b>	<b>4 037.2</b>	<b>1 788.7</b>	<b>829.1</b>	<b>3 703.8</b>	<b>10 358.8</b>
Hamilton					
Iron ore, concentrates and scrap	147.3	1 109.2	93.6	4 016.7	5 366.8
Coal	—	3 568.9	—	52.0	3 620.9
Other commodities	234.5	630.8	74.3	378.6	1 318.2
<b>Total, Hamilton</b>	<b>381.8</b>	<b>5 308.9</b>	<b>167.9</b>	<b>4 447.3</b>	<b>10 305.9</b>

### 13.21 Principal commodities in water-borne cargo loaded and unloaded at ports handling large tonnage, 1985 (thousand tonnes) (concluded)

Port and commodity	International		Coastwise		Total
	Loaded	Unloaded	Loaded	Unloaded	
Prince Rupert					
Coal	6 956.6	—	—	—	6 956.6
Wheat	752.1	—	—	—	752.1
Logs and bolts	442.9	—	247.1	22.7	712.7
Other commodities	1 123.8	16.7	117.8	285.5	1 543.8
Total, Prince Rupert	9 275.4	16.7	364.9	308.2	9 965.2
Nanicoke					
Coal	—	4 385.2	—	1 863.7	6 248.9
Iron ore, concentrates and scrap	—	1 575.5	—	374.5	1 950.0
Other commodities	261.3	15.7	236.6	—	513.6
Total, Nanicoke	261.3	5 976.4	236.6	2 238.2	8 712.5

<sup>1</sup> Includes Roberts Bank.

<sup>2</sup> Data for the port of Montreal exclude shipping activities at Contrecoeur.

<sup>3</sup> Data for the port of Quebec exclude shipping activities at Lévis.

### 13.22 Vessels and tonnage handled by harbours administered by Ports Canada<sup>1</sup>, 1985

Port or elevator	Vessel arrivals		Cargo handled '000 t	Grain elevator shipments '000 t
	No.	Gross register tonnage <sup>2</sup> '000		
St. John's, Nfld.	1,490	3,569	1 057	—
Halifax	2,284	25,050	14 023	381
Saint John, NB	1,508	18,553	8 662	198
Belledune, NB	32	308	303	—
Sept-Îles	700	13,758	22 632	—
Chicoutimi	166	363	364	—
Baie-des-Ha! Ha!	217	2,858	3 283	—
Quebec City	1,271	13,222	14 713	5 967
Trois-Rivières	451	4,937	1 957	718
Montreal	2,612	30,785	21 094	2 812
Prescott	36	510	418	250
Port Colborne	9	90	92	130
Churchill	55	298	391	359
Vancouver	8,579	63,299	56 102	9 691
Prince Rupert	1,554	12,123	10 065	1 157
Total	20,964	189,723	155 156	21 663

<sup>1</sup> Ports Canada data may differ in some instances from data in Tables 13.20 and 13.21, due to some differences in physical definitions of the ports, and to the use in some cases of different source documents.

<sup>2</sup> The capacity of the spaces within the hull, and the enclosed spaces above the deck, available for cargo and passengers, including spaces used for the accommodation of officers and crew, navigation, propelling machinery and fuel. A register ton is equivalent to 100 cu ft and it is expected that this internationally recognized measure, like the nautical mile and the knot, will continue in use for some considerable time.

## 13.23 Summary statistics of St. Lawrence Seaway traffic, 1985

Traffic, revenue and commodity	Montreal-Lake Ontario section			Welland Canal section		
	Cargo and revenue	%	Percentage change 1984-85	Cargo and revenue	%	Percentage change 1984-85
Cargo tonnes by toll classification						
Bulk	16 638 709	44.6	-11.7	21 168 333	50.6	-15.2
Grains	16 374 978	43.9	-30.3	17 024 549	40.7	-30.3
Government aid	261 917	0.7	+13.3	261 476	0.6	+13.8
Containers	113 671	0.3	-19.2	79 154	0.2	-28.7
General cargo	3 932 423	10.5	-18.0	3 318 248	7.9	-20.3
Total, cargo tonnes	37 321 698	100.0	-21.4	41 851 760	100.0	-22.4
Traffic revenue (\$) by toll classification						
Bulk	13 688 440	40.8	-11.8	6 345 608	27.3	-15.9
Grains	8 514 974	25.4	-30.3	5 237 942	22.5	-30.4
Government aid	136 105	0.4	+13.5	81 057	0.3	+13.8
Containers	96 081	0.3	-19.1	24 538	0.1	-28.7
General cargo	8 045 094	23.9	-18.0	1 659 124	7.1	-20.3
Gross registered tonnage	3 058 865	9.1	-19.4	3 449 541	14.8	-20.8
Other	26 068	0.1	+20.6	11 734	0.1	-2.7
Lockage fees	—	—	—	6 459 219	27.8	-21.2
Total, traffic revenue	33 565 627	100.0	-19.3	23 268 763	100.0	-22.0
Gross registered tonnage						
Cargo vessels	38 767 041	99.6	-19.6	50 164 070	99.7	-20.4
Non-cargo vessels	162 630	0.4	+76.0	146 469	0.3	+6.5
Total, gross registered tonnage	38 929 671	100.0	-19.5	50 310 539	100.0	-20.4
Vessel transits						
Loaded cargo vessels	2 216	71.8	-19.5	2 415	63.1	-20.9
Ballast cargo vessels	669	21.6	-20.8	1 205	31.5	-19.7
Non-cargo	203	6.6	+25.3	206	5.4	+5.6
Total, vessel transits	3 088	100.0	-17.9	3 826	100.0	-19.5
	Tonnes	%	Percentage change 1984-85	Tonnes	%	Percentage change 1984-85
Agricultural products						
Wheat	11 502 016	30.8	-27.8	11 684 872	27.9	-28.2
Corn	2 508 872	6.7	-9.6	2 638 523	6.3	-10.8
Rye	4 350	--	-72.2	4 350	--	-72.2
Oats	31 793	0.1	-45.8	35 598	0.1	-44.7
Barley	686 598	1.8	-71.4	741 691	1.8	-70.3
Soybeans	736 590	2.0	-18.0	844 327	2.0	-23.3
Flaxseed	339 500	0.9	+45.9	339 500	0.8	+45.9
Other grains	574 634	1.6	-52.8	744 821	1.8	-44.1
Total, grains	16 384 353	43.9	-30.4	17 033 682	40.7	-30.4
Other agricultural products	102 450	0.3	-13.4	101 381	0.2	+4.9
Total, agricultural products	16 486 803	44.2	-30.3	17 135 063	40.9	-30.3
Mine products						
Iron ore	8 679 210	23.2	-24.0	6 788 799	16.2	-32.7
Coal	607 108	1.6	+34.0	5 807 694	13.9	-13.7
Coke	802 266	2.2	+1.2	921 887	2.2	+7.4
Stone, ground, crushed, or rough	260 081	0.7	+115.3	816 574	2.0	+50.9
Salt	657 494	1.8	-19.7	1 521 180	3.6	-11.9
Other mine products	1 485 080	4.0	+24.3	1 269 142	3.0	+3.4
Total, mine products	12 491 239	33.5	-15.6	17 125 276	40.9	-19.1
Processed products						
Iron and steel	3 603 221	9.7	-19.1	3 094 923	7.4	-21.9
Fuel oil	558 770	1.5	-25.0	628 613	1.5	-7.3
Other petroleum products	237 562	0.6	-39.0	259 858	0.6	-35.4
Chemicals	751 092	2.0	+0.3	607 910	1.5	+20.3
Other processed products	3 069 299	8.2	+19.8	2 915 539	7.0	+15.7
Total, processed products	8 219 944	22.0	-7.6	7 506 843	18.0	-7.0

**13.23 Summary statistics of St. Lawrence Seaway traffic, 1985 (concluded)**

Traffic, revenue and commodity	Montreal-Lake Ontario section			Welland Canal section		
	Tonnes	%	Percentage change 1984-85	Tonnes	%	Percentage change 1984-85
Miscellaneous cargo						
Forest products	33 555	0.1	-52.4	31 751	0.1	-49.7
Animal products	90 157	0.2	+ 5.9	52 827	0.1	+ 8.2
Total, miscellaneous products	123 712	0.3	-20.5	84 578	0.2	-24.4
Total, all commodities	37 321 698	100.0	-21.4	41 851 760	100.0	-22.4

**Sources**

13.1 - 13.7, 13.9 - 13.21 Transportation Division, Statistics Canada.

13.8 Construction Division, Statistics Canada.

13.22 Ports Canada.

13.23 St. Lawrence Seaway Authority.



CHAPTER 14

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**COMMUNICATIONS**

## CHAPTER 14

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# COMMUNICATIONS

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## THEN

In 1921 there were 10.26 telephones in use for every 100 people, over 42 p.c. of the total being in Ontario. (1922-23)

"The Postal accommodation of these Colonies, especially Canada, compares favourably with that of England or the United States, and is in advance of that of most of the continental countries of the old world. Besides our internal communications by means of railways, steamboats, stages, horse-sleighs, dog-sleighs, waggons, men on horse-back, and on snow-shoes, we have Atlantic Mail Steamers from Quebec and Portland to Liverpool, the passages of which are as rapid as those of any other line afloat . . ." (1867)

"Broadcasting of the human voice by radio first commenced in Canada with test programs carried out by the Canadian Marconi Co. in Montreal during the winter evenings of 1919. Regular organized programs were commenced in December, 1920, by the same company, on a wavelength of 1,200 metres. In April, 1922, the establishment of broadcasting stations on a general scale commenced, 52 private, commercial and amateur broadcasting licences being granted during the fiscal year 1923." (1937)

**CHEAPEST AND BEST.**

**JOHN DOUGALL & SON.**  
MONTREAL.

New York Daily Witness. \$3 per Annum.

New York Weekly Witness. \$1 per Annum.

## NOW

The Canadian Broadcasting Corporation radio networks, English and French, were available to 99.3% of Canadians in 1985. The French and English television networks were available to 99.2% of Canadians.

In 1985, over 98% of Canadian homes had telephones, and more than half of these had two or more telephones.

In 1986, cable television was available to four out of five Canadian homes, and three out of five households subscribed. There were close to 1,000

licensed cable operators, and cable penetration in some Canadian cities reached 89%.

By 1985, there were 465 privately-owned radio stations in Canada.

In 1985, there were 115 daily newspapers published in Canada, counting morning and evening editions. Combined circulation was over 5.6 million — about 82% in English and 17% in French.



## CHAPTER 14

# COMMUNICATIONS

Numerous elements in the lives of Canadians are shaped and reshaped by the remarkable progress of science and technology. Work, leisure and educational, health care and social services are all influenced by the technical revolution, a revolution propelled by the convergence of two of the most powerful technological forces in the world today: telecommunications and information technology.

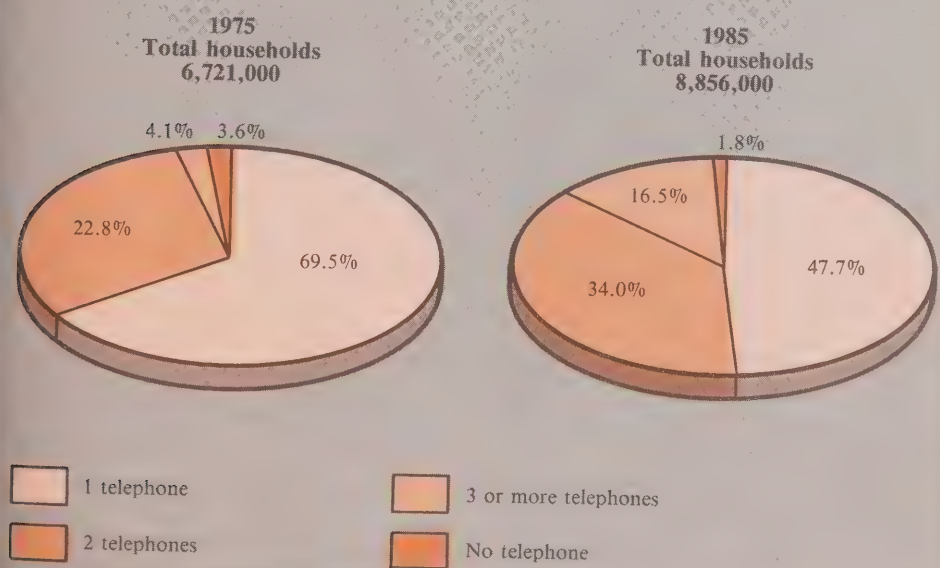
New applications of combined computer/communications technologies are changing Canada's workplaces. "Information workers", who create, process, store, distribute, analyze and otherwise handle information, comprise a major portion of Canada's workforce. Automated

tellers, point of sales terminals and inventory control systems have provided numerous conveniences.

Canada's strength as a world leader in telecommunications provides a solid basis for realizing countless applications of innovative technologies, and the country's excellent telecommunications system, its "electronic highway" for moving information, keeps pace with new technologies and incorporates new services as they become available.

In the current "information age", knowledge and information resources underlie economic, social and cultural prosperity — resources to be fostered and applied in solving such challenges

Chart 14.1  
Canadian households with and without telephones



as improving the quality and delivery of our social, educational and health care services, creating new jobs in information-related fields, and increasing the productivity of industries that face intense international competition.

## 14.1 Telecommunications system

The Canadian telecommunications system is composed of private and public elements operating under federal and provincial jurisdictions. It includes nine major and many smaller telephone companies, a telegraph-based company that competes with the telephone companies in everything but public telephone services, a domestic satellite carrier, an overseas carrier and hundreds of cable television companies. In addition, teletext and datacasting services sending information on television signals are likely to be implemented in the near future.

On a per-capita basis, Canada has the most extensive telecommunications system in the world. It stretches into virtually every community of the world's second largest country. In 1985, over 98% of Canadian homes had telephones, and more than half of these had two or more telephones. In 1985, the assets of the Canadian telephone industry totalled more than \$22 billion and its operating revenues were approximately \$10 billion.

Communications in Canada contributed, 4.2% (\$5.5 billion) of the country's Gross National Product (GNP) in 1985.

### 14.1.1 Carriers

Canada's telecommunications carriers own and operate the networks, equipment and services of the national system. While some carriers are private companies, a significant number are publicly owned. All are required, by law, to carry user calls, messages and other information at a reasonable cost without changing the content.

Although the majority of carriers are telephone companies, they also provide other services, including data transmission. Investment in plants, equipment and buildings owned and operated by the carriers is ongoing; a significant proportion of it is used to implement new computer and communications technologies and to modernize infrastructures.

Telecom Canada is a consortium of large carriers, linking the regional networks of 10 telecommunications companies across Canada. Six are privately owned telephone companies and three are provincially owned, by the governments of Alberta, Saskatchewan and Manitoba. The tenth member of the consortium, Telesat

Canada, owns and operates Canada's satellite communications system.

CNCP Telecommunications, another major carrier, provides services other than public telephone service across Canada in competition with Telecom Canada. Teleglobe Canada is the country's international carrier, connecting domestic and overseas networks.

### 14.1.2 Telecommunications networks

New technologies are gradually transforming Canada's telecommunications infrastructure. Canada has been a leader in replacing analogue communications, in which signals travel in continuous waves, with digital communications, in which signals are transmitted in discrete pulses. Because the digital mode uses computer language in its signals, it is able to carry more information than the analogue mode. It is also less susceptible to interference. Using digital and computer technologies in telecommunications has opened the way for vast interconnectable networks and myriad new applications.

In many of Canada's carrier networks, especially where traffic is heaviest, new fibre-optic cables are replacing traditional copper cables. The new cables are able to carry more information, faster, with less signal loss, than the copper cables. They are also better adapted to certain applications, such as underwater lines, because of their high capacity at low cable diameters. Both Telecom Canada and CNCP Telecommunications are in the process of laying fibre-optic trunk-lines which will be the backbone of two competing transcontinental networks in the 1990s, supplementary to their existing microwave radio networks.

**Terrestrial systems.** Three nation-spanning microwave networks form the backbone of Canada's telecommunications networks. Two of them are owned by Telecom Canada, and the third by CNCP Telecommunications. These networks consist of microwave stations spaced about 50 km apart, which relay radio signals, and amplify them along the way to compensate for normal signal loss. In general, a microwave channel can carry more than 1,200 telegraph, data or telephone signals or one television signal. The amount of traffic in a given area determines the number of channels used.

### 14.1.3 Domestic communications satellite system

Canada's satellites serve as enormous microwave towers locked into geostationary orbit about 35,900 km above the equator. Signals beamed up to them can be relayed

anywhere in Canada. In particular, they bring reliable communications to the remote corners of our country, where it has not been economical to establish a terrestrial infrastructure.

Telesat Canada, incorporated in 1969, owns and operates the domestic satellite system that supplements Canada's terrestrial microwave system. In 1972, Telesat launched Anik A1, the world's first domestic communications satellite in geostationary orbit. Anik A2, launched in 1973, and Anik A3, launched in 1975, completed the first Anik series, ensuring reliable service and supporting future service expansion.

The first commercial service to Telesat customers began in January 1973, through a network of earth stations — facilities for transmitting and receiving satellite signals. There are now hundreds of earth stations, many of them privately owned, strategically located throughout Canada.

In 1978, Telesat launched Anik B, the world's first commercial dual-band or hybrid satellite. It operated at both the 6/4 Gigahertz (GHz) frequency used for terrestrial microwave services, and at the higher 14/12 GHz band. The Department of Communications (DOC) used four of Anik B's 12 channels for experimental purposes to continue the exploration and development of new satellite communications applications, including health and educational services such as Access Alberta and the Knowledge Network in British Columbia. The 14/12 GHz band was first used commercially in 1980 to bring French-language television programming to several communities in Quebec. Anik B was retired in 1986.

The C and D series of Anik satellites, operating respectively, at the 14/12 GHz and the 6/4 GHz frequencies, are providing television, radio, data and message services to Canada at present, in the late 1980s. The next generation is being developed for use in the 1990s. The Anik E series will feature larger, higher capacity, dual-band satellites purchased from Canada's space prime contractor Spar Aerospace Limited of Toronto and Montreal.

Telesat Canada is also developing plans to offer mobile satellite communications service, MSAT, on a commercial basis by the end of the decade, therefore Canada could become the first country in the world with this type of service. The project was conceived by DOC to satisfy additional needs for improved mobile communications in isolated and sparsely populated areas. Using a relatively small and inexpensive radio terminal, MSAT users will be able to

communicate directly by satellite to virtually anywhere in the country.

Transportation, trucking, mining, exploration, forestry, agriculture, fishing, construction, manufacturing, and service industries are among those to benefit from MSAT's voice and data services. Governments will use MSAT for emergency medical services, disaster relief, resource management, law enforcement and to assist pollution clean-up. MSAT is expected to create many new business opportunities for Canadian industry in domestic and export markets and to develop new skills in Canada's labour force.

#### **14.1.4 Additional telecommunications services**

The application of new information technologies has enabled Canadian carriers and federal agencies to provide an increasing range of telecommunications services. The following new services have been introduced by Canadian carriers in the past few years.

*iNet 2000:* A service providing message store-and-forward compatibility and access to on-line data bases using the Datapac packet-switched network.

*900 Service:* A service permitting telephone subscribers to access recorded announcement and voting facilities in Canada and the United States.

*Conference 600:* A satellite-based, point-to-point, colour video conference service; now being extended through an interconnection agreement with Teleglobe Canada to overseas locations, initially the United Kingdom and France.

*Teletex:* A high-speed text transmission service conforming to international (CCITT) standards; available on the domestic telephone and other public networks, with connections to the United States and some European countries.

*Centrex III:* A business service based on central office digital switching and digital transmission to multiple subscriber-premises located anywhere in a local calling area; an integrated voice/data system complementary to existing voice service.

*Anikom 100:* A satellite data distribution service covering all of Canada and requiring customer ownership of small earth stations.

*Anikom 1000:* A nationally available, satellite-based business service which can carry any combination of voice, data, facsimile or video signals.

*Electronic Office Services:* A message service providing computer-based features such as time rescheduling, text editing, and access to on-line data banks and telex/teletex services.



Other services include electronic message and mail services such as Telepost, Globefax, Intelpost, Envoy Post, Envoy Courier and infotex.

#### 14.1.5 International telecommunications

While Canadian telecommunications networks (carrying telephone, data and video signals) interconnect with United States' networks to reach the rest of North America, overseas connections by submarine cables (both copper and fibre-optic) and by satellite networks are provided by Canada's international carrier, Teleglobe Canada.

Established as a Crown Corporation in 1949, Canadian Overseas Telecommunications Corporation, renamed Teleglobe Canada in 1975, operates international gateways or interconnection switching centres in Montreal, Toronto and Vancouver. Teleglobe also owns cable stations in Nova Scotia, British Columbia and Hawaii, and earth stations that tie Canada into the international satellite communications system in Nova Scotia, Quebec, Ontario and British Columbia. Teleglobe Canada is a major partner in TAT-9, the large capacity transatlantic fibre-optic cable that will connect Canada and the United States with England, France and Spain, beginning in 1991.

A temporary Teleglobe Canada earth station installed in Calgary, Alta. in 1988, will be used to transmit radio and television coverage of the Winter Olympics to countries around the world.

Teleglobe Canada is the country's official representative in international bodies such as INTELSAT and INMARSAT, which maintain and operate a highly sophisticated, globe-girdling international communications network.

Legislation for the sale of Teleglobe to the private sector was introduced in 1987.

### 14.2 The broadcasting system

Canada's broadcasting system evolved to meet the needs of a comparatively dispersed, multicultural population in a vast country. Broadcast service planners have worked to ensure adequate broadcasting services for all Canadians, including those living in the remotest reaches of the country, and to make it possible for broadcasters to offer a rich choice of excellent programming.

**Early years.** The first Canadian radio broadcast took place in 1919. By 1923, Canadian National Railways, which was publicly owned, began a Canadian programming radio service. This network had grown to 15 stations by 1932, when a national broadcast agency, the Canadian

Radio Broadcasting Commission (CRBC), was created which took over and further developed the Canadian National Railways service. In 1936, the Crown corporation, the Canadian Broadcasting Corporation (CBC), was established by an Act of Parliament, and absorbed CRBC staff and stations. CBC built up a national radio network that reached 76% of the country's population by 1937. By 1959, it reached 97% of the population. In the early 1960s, CBC's FM radio service was established.

Television broadcasting made its debut in Canada in 1952. The CBC began constructing its national television network and private television stations spread across the country. In 1958, Canada's first coast-to-coast live television production travelled via the CBC's newly completed microwave network, stretching from Nova Scotia to British Columbia. Canada's first private television network, CTV, began broadcasting in 1961.

**Cable television.** During the very early 1950s, television and radio signals were broadcast over the airwaves from broadcaster transmitters to viewer antennas. Cable transmission technology developed rapidly and allowed operators to improve service by redistributing high-quality reliable signals over copper wire cables. By 1954, two years after TV's debut in Canada, operators had set up cable television services in London, Guelph and Kirkland Lake in Ontario, in Grand-Mère, Asbestos, Amos and Magog in Quebec, and in Vancouver, BC.

Cable television has spread steadily throughout the country and beyond its borders. In 1986, it was available to four out of five Canadian homes, and three out of five households subscribed. The country had close to 1,000 licensed cable operators, and cable penetration in some Canadian cities had reached 89%.

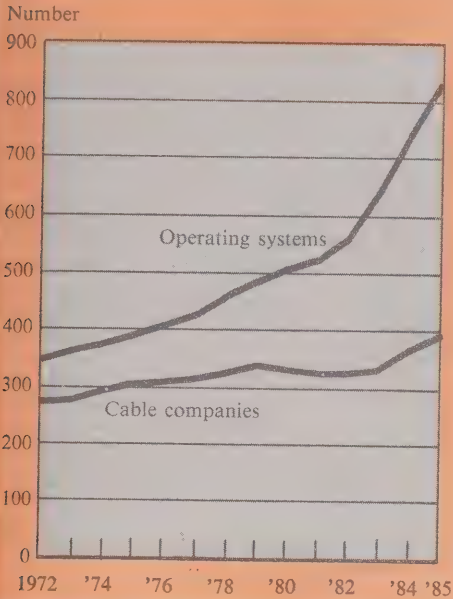
A cable-TV system consists of a head end (comprised of satellite down-links, antennas for assured reception of TV signals and studio facilities) and cable passing to the homes in a given area. Service drops are used to connect a subscriber's TV set with the cable.

A major reason for the popularity of cable service is that it offers excellent reception of an ever-increasing variety of programming, including basic and specialty services. For example, some cable companies providing 35 channels in 1986 were preparing for expansion to as many as 54 channels.

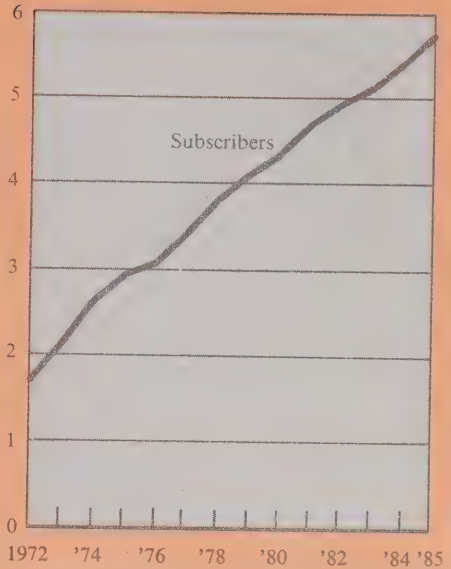
Special news and weather channels, university channels offering credit courses, parliamentary coverage, multicultural service, channels with



Chart 14.2

**Growth of cable television in Canada**

Number in millions



captions or sign-language for the hearing-impaired and shopping channels are available to Canadian cable subscribers, in addition to public and private networks from Canada and the United States.

By the mid 1980s, over 270 community channel studios each produced an average of five hours per day of original programming, or, on a national basis, about 1,300 hours of programming daily. The proliferation of community channels is the result of regulations made by the federal regulatory body, the CRTC. In 1968, regulatory responsibility for the cable television industry passed from the Ministry of Transport to the Canadian Radio-Television Commission, which was renamed the Canadian Radio-television and Telecommunications Commission (CRTC) in 1976 when it was given the additional responsibility for regulating telecommunications.

Discretionary services were first licensed by the CRTC in 1982. By 1986, over 90% of Canadian cable subscribers could pay additional monthly fees to receive such services as movie channels, the MuchMusic rock video service, and The Sport Network (TSN). About one in

five cable households subscribed to one or more discretionary service.

**Satellite transmission.** Canada also pioneered satellite distribution of television signals. Hermes, the communications technology satellite launched in 1976, was a milestone in Canadian space history. Its innovations, including tele-health, tele-education and direct broadcasting by satellite (DBS), have had worldwide impact. Using higher frequencies and smaller receiving dishes (earth stations) than earlier satellites, Hermes delivered television signals to individual homes, particularly in previously underserved or unserved rural and remote communities.

The CBC routinely uses Telesat Canada's Anik satellites to transmit television and radio signals across Canada. Live broadcasts of special events are sent simultaneously to stations in the country's six time zones; some national news broadcasts are centrally produced and transmitted at hourly intervals to centres across the country; news stories and programs are assembled in various cities for rebroadcast by local networks. Satellite coverage of fast-breaking news stories, elections, sports and

special events is possible with the portable earth stations first developed by the Department of Communications.

Educational television networks, parliamentary coverage, Pay-TV, international broadcasts and radio programming are also transmitted by Anik satellite for redistribution in communities across the nation.

In 1981, the CRTC licensed CANCOM, a Canadian broadcast satellite service, to make additional radio and television broadcasting available to Canadians living in remote areas. CANCOM distributes to smaller privately or community-owned cable systems, rebroadcasters and individual subscribers.

#### 14.2.1 Canadian Broadcasting Corporation (CBC)

In 1929, a federal Royal Commission on broadcasting recommended the creation of a national public broadcasting system, to counter the effects of US radio and serve areas in which commercial radio was not economical. In 1936, Parliament passed the Broadcasting Act that created the CBC. The new public corporation had two responsibilities: to provide a national radio service, and to regulate all broadcasting in Canada — licensing, programs and commercial content. It was financed by licence fees, advertising and loans from the public treasury. Today, CBC's financing comes through its own revenues and through parliamentary appropriations.

There has been continuing debate in Canada over the roles of private and public broadcasting. The Board of Broadcast Governors, created to supervise the public sector in 1958, was succeeded, under the 1968 Broadcasting Act, by the CRTC, which was given overall responsibility for regulating broadcasting. Under the same act, the CBC was required to offer a balanced service of information, enlightenment and entertainment covering the whole range of programming in fair proportion; extend its coverage, as public funds became available, to all parts of Canada; broadcast in English and in French, serving the special needs of geographical regions and contributing to the flow and exchange of cultural and regional information and entertainment; and contribute to the development of national unity and provide a continuing expression of Canadian identity.

**Facilities and coverage.** By the mid-1980s, the CBC operated several national services: a French television network; an English television network; the world's first national parliamentary

network; English and French AM radio and FM stereo networks; a special medium and short-wave radio service in the North; and an international shortwave and transcription service.

In 1985, the CBC owned and operated 31 television stations, and 585 television network relays and rebroadcasting transmitters. Its television programming was also carried by 31 affiliated stations, 73 affiliated rebroadcasters and 164 private or community-owned rebroadcast transmitters. Its national radio service owned and operated 68 radio stations and 584 rebroadcasters and low-power relay transmitters. The service was carried by 17 private affiliated radio stations and 57 private or community-owned rebroadcast transmitters. The CBC had production centres in Montreal (French), Toronto (English), and many other cities.

The CBC radio networks, English and French, were available to 99.3% of Canadians in 1985. The French and English television networks were available to 99.2% of Canadians.

CBC Radio presents popular and classical music, serious drama and light comedy, talk shows, analyses of politics and the arts, local news, current affairs, weather and traffic reports, and regional and network programming.

The English and French CBC television services present Canadian programming including news, current affairs, drama, sports, religion, science, children's programs, consumer information and light entertainment.

Both financially and culturally, the CBC is the major broadcaster in the country. In 1986-87, its parliamentary appropriation was \$854 million, up almost 3% over the previous year's allocation. The total CBC budget for 1986-87 was \$1.1 billion, with the balance made up by advertising (about \$200 million) and other revenues.

**Northern service.** CBC Northern Service provides radio and television to the Yukon and Northwest Territories. National network and northern-produced radio programs are delivered through terrestrial and satellite networks and broadcast on local transmitters in English and in native languages.

**International broadcasting.** Radio Canada International (RCI), the foreign service of the CBC, was established in 1945 and broadcasts on shortwave to Eastern and Western Europe, the United States, Mexico, Central and South America, the Caribbean, Africa and the Middle East in 11 languages — Russian, Ukrainian, Polish, Czech, Slovak, Hungarian, German

Spanish, Portuguese, English and French. It also feeds weekly programs by satellite to Japan (in Japanese) and Hong Kong (in English) and supplies music and spoken work transcriptions to 800 foreign radio stations.

#### 14.2.2 Private broadcasting

Canada can claim the first scheduled broadcast in North America — a musical program on May 20, 1920, on XWA in Montreal. It is likely that XWA, which was started by Marconi, began experimental broadcasting in 1919 and later became CFCF, was also the first radio station in North America. By 1985, there were 465 privately owned radio stations in Canada.

Revenues of private radio grew to over \$579 million in 1985 from almost \$559 million in 1984 and \$492 million in 1983. However, private radio profits before taxes declined to almost \$19 million in 1985 from \$25 million in 1984 (the figure was \$16 million in 1983). During the same period the profits before taxes of private television climbed steadily from \$149 million in 1983 to \$167 million in 1984 and \$182 million in 1985.

The trends can be partially explained by the greater dependence of radio stations upon local

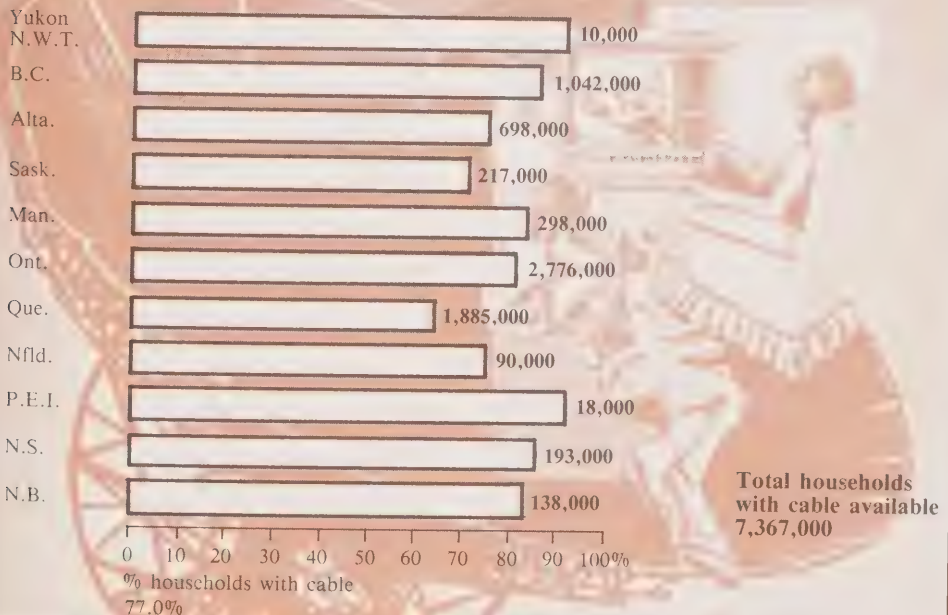
advertising, which brings in less revenue than national television commercials. Private radio stations also collectively employed more people and paid out more wages than the private television industry.

In addition to the private stations affiliated with the CBC, Canadian private television includes the Canada-wide CTV English-language network; Global Television, an English-language network based in Ontario; Le Réseau de Télévision Quatre Saisons, a network which made its debut in September 1986 and is based in Quebec; the TVA network, which has originating stations and several rebroadcast facilities in Quebec and one facility in the Atlantic provinces; the Atlantic Satellite Network, a regional satellite-to-cable service; and various independent stations located primarily in large metropolitan centres. Among the latter are several stations broadcasting in the languages of some of Canada's ethnic minorities.

In 1985, four Canadian provinces owned and operated educational television networks: Radio-Québec, TVOntario, Access Alberta (which also operates an educational radio network), and the Knowledge Network in British Columbia. In 1987, TVOntario started a French-language

Chart 14.3

#### Cable television market penetration in Canada, 1985





network to complement its existing service which broadcasts primarily, though not exclusively, in English.

### 14.3 Federal policies, programs and regulations

**The Department of Communications (DOC)** provides technical certification for broadcasting undertakings and regulates use of the radio frequency spectrum. It ensures that Canadians have access to a broad range of communications services at reasonable cost, and assures the orderly development and introduction of new information technologies in light of Canada's economic, social, political and cultural concerns. The Minister of Communications is responsible to Cabinet and Parliament for the federal government's communications policies and programs.

In 1980, the government transferred the arts and culture branch of the Secretary of State Department to the Department of Communications in recognition of the increasingly close relationship that was developing between the production of cultural content and its means of distribution, particularly as new information technologies transformed the communications field.

**Broadcasting policies and issues.** DOC's cultural affairs and broadcasting sector formulates policies to keep pace with and respond to changing conditions in Canada's broadcasting environment. The broadcasting and cultural industries branch has the primary responsibility for advising the Minister on the evolution of the broadcasting system. It also deals with film, video and sound recording, as well as publishing policy and programs. This branch develops broadcasting policies, programs and legislation, shapes strategies for implementing them, and is the department's liaison with the Canadian Broadcasting Corporation and the Canadian Radio-television and Telecommunications Commission.

**Canadian Broadcast Development Fund.** The 1968 Broadcasting Act requires its broadcasters to provide high-quality programming that uses predominantly Canadian creative and other resources.

In response to the economic realities that Canadian producers and broadcasters face in competing with larger United States networks, the Department of Communications established the Canadian Broadcast Program Development Fund in 1983 to encourage the production and broadcast of certain categories of quality televi-

sion programs by private Canadian producers. By early 1987, the fund, which is administered by Telefilm Canada, had invested well over \$150 million in the production of over 400 Canadian projects whose total budgets exceeded \$500 million.

This fund, the licensing of additional Canadian television stations during the 1970s and the emergence of pay-television services have contributed to a surge of growth in the domestic program industry. During 1985, both public and private networks in Canada enhanced their prime-time dramatic programming. The CBC, which significantly increased its Canadian prime-time drama (using much independently produced material partially financed by Telefilm), found that it maintained or increased its audience share for these episodes. Presenting dramatic programming that is high in Canadian content and developing an appropriate balance between "in-house" and independently produced programs are ongoing challenges for Canada's public and private broadcasters.

**Increased French-language service.** Although the market for French-language broadcasting is relatively small in the North American context, and concentrated in the province of Quebec, it is flourishing. Both French- and English-language broadcasters compete for audiences and advertisers. In 1985, a joint Canada-Quebec committee addressed the overall challenges facing the future of French-language television in Canada. Subsequently, the two levels of government signed a memorandum of understanding with a view to enhancing the availability of French-language viewing opportunities and achieving a broader distribution of Canadian programs in francophone export markets.

A key initiative in this area is the new international satellite-delivered francophone service TV5, composed of programming from a number of French-speaking countries, including Canada. In September 1986, the private Quebec television network, Télévision Quatre Saisons made its debut. TVOntario's La Chaîne Française, which is financially supported by the government of Canada and the province of Quebec, began in January 1987.

**Increased service to the North.** Under Canada's Northern Broadcasting Policy, residents of the North are entitled to a range of viewing choices. Native-originated programming is available to them, and northern natives are to be consulted whenever governments formulate policies that will affect them.

The Northern Native Broadcast Access Program, jointly developed by the Department of



Communications and the Secretary of State and administered by the latter, works through 13 native communications societies to support the production of television and radio programs by aboriginal peoples in their own languages. In 1986, over 500 hours of native-language television and 16,000 hours of radio were produced with the assistance of the program. Native residents enjoyed programming in 27 of the native languages, which total approximately 30.

Another mainstay of northern broadcasting is CANCOM, the private Canadian broadcast satellite service. In addition to delivering eight television and seven radio channels from the South to remote and under-served areas, it also offers three radio services that originate in the North, one in English and two in native languages.

**Extension of other services in the 1980s.** Ethnic broadcasting is assuming a greater presence within the Canadian radio and television broadcasting systems. For the hearing-impaired, sign-language reporting has been introduced into CBC news reports and into parliamentary coverage. In addition, closed captioned subtitling is available on an increasing number of programs with the assistance of the Department of Communications. Alphanumeric news and weather services and advertising channels are available on most cable networks.

**Task force on broadcasting.** In 1985, the Minister of Communications announced a fundamental review of Canada's broadcasting policy. As a first step, the government created a task force to develop recommendations for an industrial and cultural strategy to guide the evolution of the broadcasting system. It examined the roles, mandates and relationships among public and private broadcasters. The task force also assessed the role of policy instruments such as regulation and public funding, and investigated means for reducing structural impediments to the broadcasting system's contribution to Canadian life.

The *Report of the Task Force on Broadcasting* was released in September 1986. Extensive consultations and study by the House of Commons Standing Committee on Communications and Culture followed.

## 14.4 Postal service

Canada Post, formerly a department of government, was set up as a Crown corporation by the Canada Post Corporation Act, passed by the House of Commons on April 14, 1981. The corporation officially commenced operations on October 16, 1981, with the formal proclamation of the act.

Canada Post delivers mail to 10 million homes and businesses across Canada, a process that involves about 60,000 employees and 8,200 retail outlets located in more than 6,000 communities. The corporation has total revenues of about \$2.7 billion and pays out about \$2 billion annually in wages and benefits to its employees.

### 14.4.1 Products and services

Canada Post provides eight basic services:

**Premium and standard mail.** First class mail, the basic postal service for letters, postcards, bills, receipts and similar messages.

**Publishers' mailings.** Second class mail, for newspapers and periodicals.

**Admail.** Both addressed and unaddressed third class mail, the bulk mailing of advertising material which makes direct mail marketing widely available.

**Parcel post.** A national distribution service for parcels between 500 g and 30 kg in weight. Parcels are either first or fourth class mail.

**Priority post.** A courier service offering next-day delivery between major Canadian centres, and linking with other countries having similar service.

**Electronic mail.** Telepost enables the public to send messages electronically via phone, telex, or any telegraph office for delivery by mail to any address in Canada or the United States in hard-copy written form. Intelpost electronically transmits facsimiles of documents between specially equipped post offices in Canada as well as to certain overseas cities. EnvoyPost enables subscribers of the Envoy 100 service of Telecom Canada to reach any address in Canada by using the mail-delivery system.

**Special services.** Business reply cards, registered mail, special delivery, money packets, insurance, money orders, certified mail and C.O.D.

**Philatelic services.** Each year more than a dozen new stamps are issued by Canada Post and are sold, together with a variety of related products, by mail or from philatelic counters in post offices and other locations.

Many post offices also serve as distribution outlets for government forms, such as applications for passports, family allowances, old-age security pensions and income tax returns.

## 14.5 Newspapers and periodicals

### 14.5.1 Daily newspapers

Daily newspapers published in Canada in 1985 numbered 115, counting morning and evening editions. Combined circulation was over 5.6

million — about 82% in English and 17% in French (Table 14.8).

Daily newspaper advertising net revenue in 1985 was \$1.3 billion, up 11% from 1983. There were 11 dailies published in French, 99 in English, and five in other languages. Although the circulation of daily newspapers blankets the more populous areas well beyond publishing points, the smaller cities, towns and rural areas are also served by 929 community newspapers catering to local interests.

#### 14.5.2 Syndicates and wire services

In addition to their news-gathering staffs and facilities, Canadian newspapers subscribe to syndicates and wire services. The largest Canadian wire service is the Canadian Press, a co-operative agency owned by most Canadian dailies. CP delivers Canadian and world news by satellite and wire, to its 108 members; many of them also subscribe to Laserphoto which delivers, by satellite, more than 600 news photos a week, or to a mailed news photo service. An affiliate, Broadcast News Ltd., provides wire news by satellite and an audio service to AM and FM radio stations, to television stations, and for display by cable television companies. Another CP affiliate, Press News Ltd., serves CBC radio and television stations, community newspapers, magazines, and corporate and government clients. CP has its own news-gathering staff in 13 Canadian cities as well as in New York, Washington and London. Each member newspaper provides local news and pictures for transmission to fellow members and members share the cost in proportion to their circulations.

CP carries world news from Reuters (the British agency), from The Associated Press (the United States co-operative) and from Agence France-Presse (of France) and these agencies receive CP news on a reciprocal basis. CP maintains a French-language service in Quebec.

#### 14.5.3 Non-daily newspapers

Canada's non-daily newspapers fared better in 1985 than in previous years. The average circulation of non-dailies was up 13% from 1983 and the number of non-dailies reached 1,277.

The non-dailies include shoppers, community newspapers, weekend tabloids, university and school papers and ethnic non-dailies. Shoppers are free distribution publications in a newspaper format consisting almost entirely of advertising. In 1985 there were 57 such papers in Canada with a total distribution per issue of 1.7 million and an average distribution of 29,333 per paper, about three times the circulation of the average

community newspaper. The 929 community newspapers listed in 1985 had a total circulation of 9.5 million for an average circulation of just over 10,000 per paper.

Between 1983 and 1985, university and school papers increased both in numbers, from 155 to 169, and in total circulation per issue, from 1.4 million to 2.1 million. Average circulation per paper increased 26%. The average circulation of weekend tabloids decreased by 12%.

The number of ethnic non-dailies increased from 72 in 1983 to 75 in 1985. As a result, total average circulation per issue of the ethnic papers was up 7%.

#### 14.5.4 Periodicals

In May 1985, Statistics Canada conducted the Periodical Publishing Survey for the first time. This survey collected information about the employment, sales and financial situation of periodical publishers operating in Canada in 1984, as well as data on the frequency, language type, subject, circulation and distribution of the periodicals they published. (Magazines are classified as periodicals.) Data highlights include the following:

**Publishers.** The total estimated revenue of periodical publishers was \$723 million in 1984 with advertising revenue accounting for 57% of this total; 110 publishers (14%) produced more than one periodical; periodical publishers reported 7,247 full-time employees and 3,691 volunteers; and 41% of publishers declared before taxes profits.

**Language.** Of the 1,151 periodicals reported, 60% were classified as English, 24% were designed as French and the remaining 16% were categorized as bilingual or other.

**Circulation.** Total circulation per issue was 33.5 million copies with general interest publications accounting for 73% of this total. Almost three-quarters of the total circulation was distributed through Canada Post.

#### 14.5.5 Ethnic serials project

A Canadian ethnic serials project at the National Library of Canada contributes to the federal government's multicultural program. In 1973, the National Library undertook to collect all serial publications of Canada's cultural communities. All known Canadian ethnic newspapers were ordered on subscription; all Canadian periodicals, including ethnic, have deposited two copies of each publication in the National Library since 1969 as required by law. Since the beginning and terminating rates of the

Canadian ethnic serial publications are quite high, the ethnic serials project is an ongoing process which identifies and acquires all new newspaper and periodical titles. The collection of about 1,600 titles is the largest in Canada.

This program preserves and makes available to researchers material that would otherwise be lost or difficult to obtain. An ethnic serials specialist is on staff in the reference and information services division to provide a reference and consulting service to researchers.

Periodicals and newspapers on microfilm in the National Library collection are available to researchers on interlibrary loan; original newspapers must be consulted in the library.

*Checklist of Canadian ethnic serials* was published by the National Library in May 1981, listing all known Canadian ethnic serial publications.

#### **14.6 Native communications program**

This program provides core-funding to 15 native communications organizations established to serve the varied media needs of native people in designated regions of the country. Most of

the societies supported under this program publish newspapers; others provide maintenance to native community radio stations, produce radio and video programs, provide translation services, and support point-to-point survival communications through high frequency and single band radio systems.

The northern native broadcast access program, established in 1983, provides support to 13 northern native broadcasting centres to produce regional radio and television programs in the native languages of the region. The programs are then available on existing broadcasting services in the North, such as CBC or TVOntario. Announced with the government's northern broadcasting policy, the program seeks to offset the effects of satellite-delivered TV to the isolated North with programming that is culturally relevant and which will have a significant impact on the survival of approximately 30 northern native dialects. Thirteen broadcasters are presently producing 20 hours per week of regional radio. Television services are in the development stage, with regional network services ranging from 30 minutes to four hours per week.

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- 14.5 - 14.5.1, 14.5.3 - 14.5.4 Education, Culture and Tourism Division, Statistics Canada.
- 14.5.2 The Canadian Press.
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TABLES

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14.1 Financial statistics of telephone systems, 1978-85 (thousand dollars)

Year	Capital stock <sup>1</sup>	Long-term debt	Cost of plant	Revenue	Expenses	Construction expenditures
1978	3,194,762	6,322,293	16,029,966	4,583,388	4,112,297	1,901,495
1979	3,564,875	6,606,879	17,754,852	5,339,842	4,786,338	2,132,536
1980	3,856,627	7,265,766	19,742,479	6,178,449	5,612,657	2,509,332
1981	4,119,477	8,015,933	22,297,545	7,379,725	6,715,815	2,853,237
1982	4,573,267	8,683,638	24,467,219	8,323,592	7,674,489	2,860,006
1983	4,742,311	8,720,519	25,917,340	8,970,329	8,135,243	2,229,790
1984	4,879,469	8,611,616	27,307,157	9,695,881	8,748,234	2,403,501
1985	4,957,576	8,816,665	28,483,935	10,334,900	9,306,859	2,554,770

<sup>1</sup> Includes premium on capital stock.

14.2 Financial statistics of telephone systems, by province, 1983-85

Year and province	Capital stock <sup>1</sup> \$'000	Cost of plant \$'000	Revenue \$'000	Expenses \$'000	Full-time employees	Salaries and wages <sup>2</sup> \$'000
1983						
Newfoundland	136,532	494,658	158,251	139,131	1,625	43,612
Prince Edward Island	19,843	89,849	28,521	24,627	300	7,373
Nova Scotia	138,476	761,760	256,935	225,364	3,333	83,977
New Brunswick	109,310	599,901	213,350	186,320	2,490	63,156
Quebec <sup>3</sup>	3,419,696	14,259,331	5,081,177	4,468,717	55,634 <sup>4</sup>	1,685,964 <sup>4</sup>
Ontario	109,692	263,508	90,642	65,438	...	...
Manitoba	—	1,002,904	298,412	290,819	4,034	118,846
Saskatchewan	2,204	1,116,145	332,211	320,209	4,658	137,281
Alberta	—	3,630,829	1,132,883	1,149,443	13,663	423,869
British Columbia <sup>5</sup>	806,558	3,698,455	1,377,947	1,265,175	14,839	437,359
Total	4,742,311	25,917,340	8,970,329	8,135,243	100,576	3,001,437
1984						
Newfoundland	142,376	531,715	167,561	145,107	1,647	42,296
Prince Edward Island	20,383	96,161	30,804	26,588	305	8,080
Nova Scotia	143,440	835,584	277,393	243,464	3,434	92,498
New Brunswick	115,150	642,362	232,562	203,647	2,434	67,094
Quebec <sup>3</sup>	3,424,124	15,014,363	5,537,952	4,882,183	53,084 <sup>4</sup>	1,796,134 <sup>4</sup>
Ontario	114,344	283,959	100,136	72,560	...	...
Manitoba	—	1,083,152	335,244	320,264	4,110	127,797
Saskatchewan	2,928	1,176,682	387,638	352,026	4,525	138,551
Alberta	—	3,748,283	1,224,524	1,210,633	12,917	420,775
British Columbia <sup>5</sup>	916,724	3,894,896	1,402,067	1,291,762	14,146	468,481
Total	4,879,469	27,307,157	9,695,881	8,748,234	96,602	3,161,706
1985						
Newfoundland	147,530	577,014	181,229	157,939	1,672	36,292
Prince Edward Island	21,160	107,531	33,325	28,902	293	8,865
Nova Scotia	152,615	921,084	305,056	270,956	3,569	105,010
New Brunswick	121,315	682,675	246,559	218,862	2,360	72,822
Quebec <sup>3</sup>	3,555,325	15,950,927	5,955,419	5,259,626	50,789 <sup>4</sup>	1,801,879 <sup>4</sup>
Ontario	122,148	305,207	109,161	78,242	...	...
Manitoba	—	1,212,855	361,132	352,616	4,144	135,562
Saskatchewan	2,944	1,244,178	428,310	391,299	4,552	147,919
Alberta	—	3,614,340	1,307,530	1,258,499	12,638	436,746
British Columbia <sup>5</sup>	834,539	3,868,124	1,407,179	1,289,918	14,117	468,033
Total	4,957,576	28,483,935	10,334,900	9,306,859	94,134	3,213,128

<sup>1</sup> Includes premium on capital stock.

<sup>2</sup> Full-time and part-time.

<sup>3</sup> Includes data of Bell Canada which operates in Quebec, Ontario and Northwest Territories.

<sup>4</sup> Ontario and Quebec combined.

<sup>5</sup> Includes data of CN Telecommunications for Yukon and Northwest Territories.



**14.3 Trends in the Canadian telephone industry, 1978-85**

Year	Number of systems reporting	Number of employees <sup>1</sup>	Salary and wage payments <sup>2</sup> \$'000,000	Telephones in use (company-owned)			
				Business '000	Residential '000	Total '000	Per 100 population
1978	260	92,873	1,630.1	4,528	10,644	15,172	
1979	223	96,539	1,871.8	4,761	11,078	15,839	64
1980	183	100,059	2,182.0	5,022	11,509	16,531	67
1981	153	102,625	2,563.5	5,193	11,751	16,944	69
1982	120	105,061	2,882.6	5,044	11,758	16,802	70
1983	119	100,576	3,001.4	4,885	11,746	16,631	68
1984	112	96,602	3,161.7	4,735	11,745	16,480	66
1985	106	94,134	3,213.1	4,637	11,338	15,975	65

<sup>1</sup> Full-time employees only.<sup>2</sup> Full-time and part-time employees.**14.4 Network access lines in service, by province, and by type of service and per 100 population, 1984 and 1985**

Type of line	Newfoundland		Prince Edward Island		Nova Scotia		New Brunswick		Quebec	
	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985
Individual lines										
Residence	144,588	149,546	28,531	29,619	251,907	261,844	188,415	194,976	2,210,382	2,292,933
Business	24,154	25,743	3,877	4,101	27,652	29,782	78,034	73,655	386,884	416,230
Two-party lines										
Residence	6,949	6,047	85	61	1,044	846	3,743	3,310	103,694	95,093
Business	499	460	2	2	168	165	125	123	1,575	1,469
Four-party lines										
Residence	231	140	12,283	12,291	40,290	38,388	32,454	32,020	102,040	72,472
Business	21	16	243	239	1,247	1,203	881	839	2,647	2,037
More than four-party lines										
Residence	36	9	—	—	40	47	1,054	1,058	10,318	20,728
Business	5	—	—	—	—	—	35	28	429	449
Business lines										
WATS <sup>1</sup>	169	227	136	1	1,177	1,193	—	1,870	18,692	..
Coin	2,458	2,526	578	580	4,391	4,461	3,469	3,660	40,581	..
Mobile	999	842	—	—	—	—	3,171	3,880	2,957	..
Sub-total, main access lines	180,109	185,556	45,735	46,894	327,916	337,929	311,381	315,419	2,880,199	..
Centrex business	7,466	7,751	2,175	2,972	17,443	20,805	1,217	1,090	109,268	..
PBX <sup>2</sup>	—	—	—	—	—	—	—	—	—	..
Residence	—	—	4	—	—	—	—	—	16	16
Business	3,180	3,277	2,757	2,808	25,825	26,864	1,511	1,122	66,605	65,976
Other	—	316	—	142	—	141	—	—	2,045	4,010
Total, access lines	190,755	196,900	50,671	52,816	371,184	385,739	314,109	317,631	3,058,133	3,174,238
Total access lines per 100 population	..	33.9	..	41.3	..	43.7	..	44.1	..	48.0
Total telephones	282,825	..	78,029	..	571,088	..	439,446	..	4,073,882	..
Total telephones per 100 population	48.9	..	61.5	..	65.0	..	61.3	..	62.1	..
	Ontario		Manitoba		Saskatchewan		Alberta			
	1984	1985	1984	1985	1984	1985	1984	1985		
Individual lines										
Residence	3,044,453	3,151,082	344,186	352,562	292,236	298,749	630,733	630,733	767,019	
Business	629,618	670,573	75,504	52,751	95,863	101,764	200,855	200,855	245,064	
Two-party lines										
Residence	159,363	149,579	1,235	1,047	11	2	—	—	—	
Business	1,607	1,484	—	—	1	1	—	—	—	
Four-party lines										
Residence	134,342	132,878	—	—	1,689	1,555	93,222	93,222	96,290	
Business	3,152	3,148	—	—	10	13	5,912	5,912	5,795	
More than four-party lines										
Residence	4,858	2,700	44,990	44,979	68,398	66,451	—	—	—	
Business	216	138	2,532	2,485	3,268	3,238	—	—	—	

### 14.4 Network access lines in service, by province, and by type of service and per 100 population, 1984 and 1985 (concluded)

	Ontario		Manitoba		Saskatchewan		Alberta	
	1984	1985	1984	1985	1984	1985	1984	1985
Business lines								
WATS <sup>1</sup>	35,455	..	—	—	1,481	1,911	2,236	5,790
Coin	54,179	..	4,808	5,048	4,100	4,476	14,607	15,197
Mobile	5,715	..	432	439	2,668	2,926	41,542	31,838
Sub-total, main access lines	4,072,958	..	473,687	459,311	469,725	481,086	989,107	1,166,993
Centrex business PBX <sup>2</sup>	143,500	..	16,418	14,691	18,718	19,967	25,977	36,311
Residence	—	35	—	—	—	—	—	—
Business	114,869	119,897	31,551	43,400	10,813	9,420	53,885	45,604
Other	4,106	13,693	—	—	—	—	—	—
Total, access lines	4,335,433	4,507,647	521,656	517,402	499,256	510,473	1,068,969	1,248,908
Total access lines per 100 population	..	49.3	..	48.1	..	50.1	..	52.6
Total telephones	6,030,155	..	771,953	..	713,779	..	1,660,142	..
Total telephones per 100 population	66.8	..	72.5	..	70.2	..	71.0	..
	British Columbia		Yukon		Northwest Territories		Canada	
	1984	1985	1984	1985	1984	1985	1984	1985
Individual lines								
Residence	943,964	975,385	5,677	5,705	10,509	10,950	8,095,581	8,490,370
Business	202,365	219,705	3,155	3,259	5,690	6,097	1,733,651	1,848,724
Two-party lines								
Residence	78,892	71,804	204	189	8	6	355,228	324,984
Business	2	2	31	27	8	6	4,018	3,733
Four-party lines								
Residence	58,962	60,962	—	—	—	—	475,513	446,996
Business	1,851	1,983	—	—	—	—	15,964	15,273
More than four-party lines								
Residence	6,948	1,579	171	165	28	31	136,841	137,747
Business	326	89	59	57	3	3	6,873	6,487
Business lines								
WATS <sup>1</sup>	3,483	5,177	—	—	..	—	62,829	..
Coin	14,281	14,985	185	213	402	..	144,039	..
Mobile	15,922	17,060	158	1,049	260	..	73,824	..
Sub-total, main access lines	1,326,996	1,368,731	9,640	10,664	16,908	..	11,104,361	..
Centrex business PBX <sup>2</sup>	20,529	27,977	860	956	1,842	..	365,413	..
Residence	—	—	—	—	—	—	20	51
Business	39,368	37,631	341	368	619	..	351,324	356,925
Other	—	101,542	—	—	2	—	6,153	119,846
Total, access lines	1,386,893	1,535,881	10,841	11,988	19,371	21,043	11,827,271	12,480,666
Total access lines per 100 population	..	53.0	..	52.8	..	41.3	..	48.9
Total telephones	1,818,676	..	14,077	..	25,539	..	16,479,591	..
Total telephones per 100 population	63.1	..	61.7	..	50.6	..	65.2	..

<sup>1</sup> Wide area telephone service lines.<sup>2</sup> Private branch exchanges.

### 14.5 Local and long-distance calls, calls per capita and average calls per telephone, 1978-85

Year	Local calls '000	Long-distance calls '000	Total calls '000	Calls per capita	Average calls per telephone		
					Local	Long-distance	Total
1978	22,986,788	1,082,619	24,069,407	1,020	1,515	71	1,586
1979	23,885,752	1,210,771	25,096,523	1,054	1,508	76	1,584
1980	25,501,063	1,340,263	26,841,326	1,114	1,543	81	1,624
1981	27,186,415	1,452,979	28,639,394	1,176	1,605	86	1,691
1982	27,554,131	1,475,376	29,029,507	1,173	1,640	88	1,728
1983	28,943,875	1,541,277	30,485,152	1,219	1,740	93	1,833
1984	31,204,784	1,640,932	32,845,716	1,300	1,894	100	1,994
1985	32,926,313	1,792,434	34,718,747	1,361	2,061	112	2,173

### 14.6 Operating and financial summary of the radio and television broadcasting industry, 1982-85 (thousand dollars)

Item	Private stations		CBC	Private stations		CBC
	Radio	Television		Radio	Television	
	1982	1983		1984	1985	
Operating revenue						
Revenue from sale of air time	465,931	670,832	106,989	479,488	711,346	123,675
Local time sales	346,921	166,765	13,103	352,723	173,939	11,634
National time sales	117,411	393,763	76,004	125,120	419,507	53,760
Network time sales	1,598	110,305	17,882	1,645	117,900	58,281
Production and other revenue						
Syndication revenue	174	8,349	—	501	11,269	—
Production revenue	4,516	45,641	—	5,672	55,646	—
Other revenue	5,222	21,153	3,882	6,446	8,172	7,031
Total, operating revenue	475,843	745,976	110,871	492,107	786,432	130,706
Departmental expenses						
Program	152,557	320,125	433,556	159,904	351,795	480,386
Technical	21,144	46,998	153,629	23,041	45,450	170,293
Sales and promotion	102,647	66,345	25,802	106,425	70,038	26,089
Administration and general	145,333	117,134	157,673	148,830	121,396	157,551
Total, departmental expenses	421,680	550,602	770,660	438,200	588,678	834,319
Depreciation	16,112	24,852	33,742	17,752	26,347	38,116
Interest expense	27,822	30,657	—	22,650	34,261	—
Other adjustments - income (expense)	20,197	3,017	—	3,016	11,380	6,530
Net profit (loss) before income taxes	30,425	142,883	—	16,520	148,527	—
Net cost of CBC operations	—	—	693,531	—	—	735,199
Salaries and other staff benefits	223,082	195,939	435,274	230,708	212,785	511,226
Average number of employees	9,737	6,840	12,129	9,666	6,895	12,334
	1984	1985				
Operating revenue						
Revenue from sale of air time	544,318	816,612	154,096	565,548	884,770	162,431
Local time sales	398,674	194,344	13,614	426,295	208,139	14,496
National time sales	144,152	474,447	72,798	138,707	519,512	79,271
Network time sales	1,493	147,821	67,684	546	157,119	68,664
Production and other revenue						
Syndication revenue	51	15,061	—	157	14,781	—
Production revenue	6,759	55,350	—	7,497	50,831	—
Other revenue	7,551	12,589	7,012	6,196	10,559	7,148
Total, operating revenue	558,679	899,612	161,108	579,398	960,941	169,579

### 14.6 Operating and financial summary of the radio and television broadcasting industry, 1982-85 (thousand dollars) (concluded)

Item	Private stations		CBC	Private stations		CBC
	Radio	Television		Radio	Television	
	1984			1985		
Departmental expenses						
Program	174,041	411,060	534,578	182,457	438,338	575,086
Technical	25,177	52,976	188,708	26,800	60,236	205,707
Sales and promotion	124,182	79,745	30,223	135,509	85,881	34,875
Administration and general	166,228	135,809	184,182	170,524	143,818	213,524
Total, departmental expenses	489,629	679,590	937,691	515,291	728,273	1,029,192
Depreciation	19,264	30,004	39,567	19,830	32,420	46,284
Interest expense	23,936	34,434	—	23,871	36,242	—
Other adjustments – income (expense)	-448	11,149	6,460	-1,485	18,132	8,436
Net profit (loss) before income taxes	25,402	166,735	...	18,922	182,138	...
Net cost of CBC operations	...	...	809,690	...	...	897,461
Salaries and other staff benefits	257,961	241,255	545,099	270,845	267,608	589,513
Average number of employees	10,025	7,215	12,473	9,918	7,424	12,075

### 14.7 Operating and financial summary of the cable television industry, 1982-85

Item	1982	1983	1984	1985
Operating revenue (\$'000)				
Direct subscribers	411,883	470,263	520,922	594,296
Indirect subscribers (apartments)	33,132	36,060	40,514	41,065
Installation (including reconnect)	22,977	27,082	30,449	33,319
Education services	4	1	—	81
Other	4,348	1,434	3,172	3,382
Total, operating revenue	472,344	534,839	595,057	672,143
Operating expenses (\$'000)				
Program	37,739	36,423	38,237	41,623
Technical	127,232	143,288	162,610	179,675
Sales and promotion	14,866	15,987	19,055	22,783
Administrative and general	108,677	129,457	147,899	162,189
Depreciation	71,603	81,694	91,564	101,491
Interest expense	81,537	66,947	68,342	73,284
Other adjustments – addition to (or deduction from) income	5,529	3,634	2,819	2,080
Total, operating expenses	436,126	470,163	524,887	578,966
Net profit (loss) before income taxes	36,218	64,676	70,170	93,178
Salaries and other staff benefits	129,664	149,614	171,284	193,930
Number of employees, weekly average	5,965	6,484	6,866	7,255
Number of subscribers ('000)				
Individual	4,224	4,439	4,668	4,970
Indirect (contract with apartment building owner)	709	702	721	703
Total, subscribers	4,934	5,140	5,390	5,673
Number of households served ('000)				
Households in licensed area (including apartments)	6,895	7,109	7,397	7,709
Households offered service (cable passes by building)	6,605	6,848	7,101	7,366
Households in multiple dwellings, offered service (apartments)	1,778	1,900	2,003	2,041



**14.8 Daily newspapers, number and circulation, 1978-85**

Year	English		French		Other		Total	
	Number	Average daily circulation '000	Number	Average daily circulation '000	Number	Average daily circulation '000	Number	Average daily circulation '000
1978	108	4,351	12	1,092	7	91	127	5,534
1979	109	4,367	11	940	6	46	126	5,354
1980	107	4,403	11	979	5	42	123	5,425
1981	106	4,608	11	980	3	38	120	5,624
1982	108	4,577	10	985	2	7	118	5,559
1983	106	4,580	10	964	2	15	117	5,566
1984	101	4,551	11	987	5	28	115	5,667
1985	99	4,653	11	987	5	28		

**14.9 Number and circulation of non-daily newspapers, 1983-85**

Type	Number			Total circulation ('000)			Average circulation per issue		
	1983	1984	1985	1983	1984	1985	1983	1984	1985
Community newspapers	844	894	929	7,615	9,010	9,468	9,023	10,078	10,192
University and school papers	155	175	169	1,397	1,882	2,062	9,013	10,754	12,201
Ethnic non-dailies	72	76	75	754	856	846	10,472	11,263	11,280
Shoppers	64	69	57	1,711	1,908	1,672	26,734	27,652	29,333
Weekend tabloids	11	11	10	669	724	617	69,818	65,818	61,700
Armed Forces newspapers	4	12	13	12	48	49	3,000	4,000	3,769
Specialized newspapers	—	10	9	—	447	370	—	44,700	41,111
Supplements	4	18	15	188	690	588	47,000	38,333	39,200
Total	1,154	1,265	1,277	12,348	15,567	15,672	10,700	12,306	12,273

**Sources**

14.1 - 14.7 Services Division, Statistics Canada.

14.8 - 14.9 Education, Culture and Tourism Division, Statistics Canada.



CHAPTER 15

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**CULTURAL ACTIVITIES  
AND LEISURE**

**CHAPTER 15****CULTURAL ACTIVITIES AND LEISURE**

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Chart 15.5	Percentage distribution of television viewing time, by type of program and origin of station	15-18

## THEN



"Directions for Bathing The Royal Humane Society has issued the following instructions: . . . Bathe when the body is warm, provided no time is lost in getting into the water. Avoid chilling the body by sitting or standing undressed on the banks or in boats after having been in the water. Avoid remaining too long in the water - leave the water immediately there is the slightest feeling of chilliness. The vigorous and strong may bathe early in the morning on an empty stomach. The young, and those who are weak, had better bathe

two or three hours after a meal - the best time for such is from two or three hours after breakfast . . ." (1873)

"Public appreciation of Canadian art is very much in its infancy and there is a very great need of education to show the prospective collector that Canadian art to day possesses qualities vastly more enduring and original than does a very large proportion of the art that is imported from other countries." (1924)



## NOW

Of the 40,000 works of art in the National Gallery of Canada's collections, 75% are Canadian.

Of all new books released in 1984-85, 57% were written by a Canadian citizen or landed immigrant and three-quarters of these were published by Canadian-controlled firms.

In 1984, a total of 3,170 public library service points indicated that they held about 54 million books, reported around 158 million direct circulations, employed 1,878 full time professional librarians and spent about \$402 million for their total operations.

The average Canadian spends 50% more time watching television than on any other leisure activity. In 1985, Canadians spent an average of 23.5 hours per week watching television.

Young people (age 15-19) and older people (age 65-69) attend live theatre more often than people in any of the other age groups.

During 1984, Canada's 240 performing arts companies, which include most of the major companies, gave almost 28,000 performances to combined audiences of 10.1 million people. The revenues earned amounted to \$100.2 million.

## CHAPTER 15

# CULTURAL ACTIVITIES AND LEISURE

### 15.1 Changes in cultural growth

Cultural activities, including attendance at movies and live performances, listening to radio, records and tapes, reading books and periodicals, watching television, and pursuing arts and crafts, now absorb more hours in a Canadian's day than any other non-work activity except sleep.

Culture plays a significant role in Canada's economy, providing jobs and contributing to national income and growth. In 1985, the cultural labour force was estimated at 307,000. The cultural sector is the fourth largest employer in Canada — three times larger than the forestry sector and equal to the agricultural sector. Cultural revenues totalled about \$10 billion, placing the cultural industries on a par with the metals and mining industry. The cultural industries' direct and indirect effect on Canada's economy is estimated between \$15 billion and \$20 billion.

While the cultural sector is healthy in many respects, certain components require support in order to ensure outlets for distinctive Canadian talent. In acknowledgement of this, the federal government's February 1986 budget allocated an additional \$375 million over five years for the assistance and enhancement of Canadian culture. In announcing the allocation, the government made specific mention of its desire to assist new initiatives that would support the maintenance of Canada's national identity in artistic endeavours.

#### 15.1.1 Federal policies for the arts

The Minister of Communications has been responsible for the government's cultural and artistic initiatives since 1980. In that year, the government transferred responsibility for all federal policies and programs related to arts and culture from the Secretary of State to the Minister of Communications. This was done in recognition of the important link between communications and culture. It ensures that communications policy is formulated with full regard for the cultural implications of communications technologies and that the cultural milieu benefits from technological advances.

The Minister of Communications reports to Parliament on behalf of Canadian cultural boards and agencies, including the Canada Council, the Canadian Cultural Property Export Review Board, Telefilm Canada, the National Arts Centre, the National Film Board, the National Library of Canada, the National Museums of Canada and the National Archives of Canada.

The Department of Communications develops and administers legislation, policies and programs related to the arts, culture and heritage. Its objective is to foster the creation, production, distribution, marketing, use and preservation of Canadian cultural products, objects and activities. Its work addresses the needs of performing and visual artists, crafts people, arts organizations, museums, archives and libraries. In 1986, federal and provincial governments began a joint study of the economic importance of the arts.

**Support for arts and artists.** The government has taken a number of steps to improve the economic situation of artists and arts organizations. In 1986, task forces examined artists' training and educational opportunities, taxation, employment mobility, professional and trade union affiliations, and access to government programs and services. These reviews were supplemented, in 1986, by a government-commissioned study of proposals put forward by the artistic community during the 1986 Canadian Conference of the Arts. In addition, to ensure a balanced perspective, the Bovey Commission was appointed to investigate broader issues associated with arts funding. This task force, which released its report *Funding of the Arts in Canada to the Year 2000* in June 1986, framed its recommendations within the context of how other countries handle arts funding issues. In early 1987, the Minister of Communications announced the appointment of a seven-member Canadian Advisory Committee on the Status of the Artist.

**Book publishing.** In 1985, the government announced a new policy designed to encourage Canadian presence in an increasingly foreign-owned publishing industry. Citing the impor-

tance of a strong book publishing and distribution industry owned and controlled by Canadians, the government gave notice that it would review, under the Investment Canada Act, all proposed foreign investment in book publishing, whether direct or indirect, and it would favour proposals for new businesses where investment is made through joint ventures with Canadian control. Acquisitions by foreign-controlled businesses are possible only if control is divested to Canadians within two years at a fair market price. (See section 15.5.1 for additional book publishing information.)

In 1986, the government announced a new set of direct financial support measures for the Canadian-controlled sector of the industry. These measures provide both cultural and industrial support, including a new Book Publishing Industry Development Program to enhance the viability of individual firms and increased funding for the Canada Council to support the publication of culturally significant titles which cannot be entirely financed by the marketplace. The total budget for these measures is \$13 million a year over five years. In the same year, the government established a \$3 million-per-year Public Lending Right Commission (PLR) within the Canada Council, responding to a long-standing request from Canadian writers to be compensated for use of their works in libraries.

**Sound recording.** Canadians are one of the world's highest per capita consumers of recordings and audio-cassettes. Sound recording is one of the most important cultural industries in Canada. In the mid-80s, the government took a major step to increase the production of records by Canadians. In response to the industry's concerns about production, marketing, distribution and development, the government designated a \$25 million, five-year development strategy. Approximately 60% will help the English-language sector and 40% will assist French-language recordings.

**Film.** The December 1985 report of the government's federal Task Force on the Film Industry analyzed the structural handicaps facing Canadian film producers and distributors. In 1986, the government announced a five-year program administered by Telefilm Canada to provide \$30 million annually for feature-film production and distribution and an additional \$3 million a year for dubbing or subtitling. The money will help the Canadian feature-film industry produce films and videos for exhibition in Canadian cinemas.

The Versioning Program provides financial support for dubbing and subtitling, to increase the exchange of film and video productions

between English and French Canada. This will lead to greater awareness of our film and video heritage, provide quicker access for French-speaking Canadians to productions and programming in their own language, and increase the number of Canadian films and videos available to television following theatrical release. Telefilm Canada administers the program.

The government also provides tax incentives to stimulate film and videotape production. The Department of Communications administers a 100% capital cost allowance, a tax deferral scheme, with about \$150 million invested in 1985 in Canadian film and videotape production. In January 1986, regulations for this program were altered to ensure greater conformity to the Canadian content regulations of the CRTC.

**Economic and Regional Development Agreements.** A relatively recent development in Canadian arts policy has been to include development projects related to artistic or cultural endeavours in federal-provincial Economic Regional Development Agreements (ERDAs). The Department of Communications signed the first culture and communications sub-agreement with Manitoba in 1984, providing \$21 million (\$13 million in federal contributions) to strengthen development of the province's communications and cultural enterprises. Similar agreements have been signed with other provinces since that time.

## 15.2 The performing arts

Performing arts including theatre, music, dance and opera, share the collective entertainment market mainly with movies and sporting events. The appearance of television in the 1950s and its rapid growth was first seen as formidable competition for the stage. There was fear that TV entertainment at home would cut deeply into attendance at the performing arts.

But, following the period of the appearance of television, instead of a decline of interest there has been a general upsurge in all the performing arts.

These results come from a survey of leisure activities conducted in conjunction with the monthly labour force survey of Statistics Canada in February 1978. Partial results were published in the annual *Culture statistics, performing arts, 1978*, Statistics Canada Catalogue 87-610.

Vitality in the performing arts has occurred at all levels, amateur as well as professional. Greater numbers are not only attending but becoming actively involved for recreation. The proportion who go to live theatre, much higher than average in the 15-19 age group, drops to the average in the 20-24 age range, and decreases with advancing age.



Those in the 65-69 age range attend almost as frequently as the younger theatre-goers. The participation rate generally increases with higher education. More women go to live theatre than men, and more often than men. A greater proportion of English-speaking Canadians attend than French-speaking Canadians. A small proportion of bilingual Canadians who go to theatre performances attend far more frequently than either their French- or English-speaking compatriots.

The number of performing arts organizations fluctuates constantly. There are always organizations folding or coming into being. Data on 240 organizations collected by Statistics Canada for 1984 include most of the major companies.

For this annual survey the organizations included 139 theatre companies, 58 music organizations, 32 dance companies and 11 opera companies.

During 1984, the 240 companies gave almost 28,000 performances to combined audiences of 10.1 million people. The revenues earned amounted to \$100.2 million. Grants from all levels of government and donations from the private sector totalled over \$93 million. More precisely, government grants accounted for 35% of all revenue for theatre companies, 31% for opera companies, 37% for music organizations and 37% for dance groups. In descending order the principal contributors were the federal government, provincial governments and municipal or regional governments. The level of private sector donations, in total, was between that of the provincial and municipal governments for theatre while in music, dance and opera it exceeded provincial grants.

On the expenditure side, personnel costs accounted for approximately 55% of the average expenses for theatre, dance or opera companies and rose to 71% for music groups. Both publicity and administration each accounted for between 5% and 9% of total expenses, depending on the discipline. Other production costs, such as for sets, costumes, props, technical equipment and tickets, accounted for 16% of theatre, 6% of music, 23% of dance and 15% of opera total average expenses.

**Professional theatre** is the most prevalent of the performing arts in Canada. In 1984 more professional theatre companies gave more performances before more Canadians than all the professional music, dance and opera companies combined.

**Symphony orchestras.** Most major Canadian cities now support symphony orchestras. Several, including the Toronto, Montreal and Vancouver symphonies and the National Arts Centre orchestra, have achieved international status.

**Dance.** Three major Canadian dance companies, the National Ballet, the Royal Winnipeg Ballet and Les Grands Ballets Canadiens, have been

enthusiastically acclaimed. Recent years have produced several smaller professional groups usually called chamber or concert ballet companies, often comprised of lead dancers from the major companies.

**Opera** is the most limited of the performing arts in its sphere of influence, but this most lavish of the arts is attracting growing numbers of devotees.

**Regional picture.** Activity in the performing arts is characterized by regional differences, influenced by Canadian geography and demography. Distribution of the population determines where performing arts companies establish themselves. Large cities offer the sustaining market as well as the creative climate, training ground and community of artists that foster development. But Canada's handful of large cities are strewn unevenly across the country.

If population concentrations are not sufficient to support performing arts organizations, those companies must seek out audiences. This means touring. In 1984, one in three theatre performances was given on tour, in music one in seven, in dance almost one in two and in opera one in three.

Another dimension underlies touring. At the level of national policy, this first received formal recognition in 1968 with a federal government statement of support for democratization of cultural opportunities and decentralization of cultural resources. The aim was to ensure that as many Canadians as possible would have access to the performing arts. The touring office of the Canada Council has since helped many arts groups perform across Canada, often in quite remote communities.

One of the cultural roles of touring is to help different regions become more aware of each other, reinforcing a sense of the Canadian community.

**Economic picture.** The performing arts cannot earn enough money to meet expenses and depend on massive financial transfusions in grants and subsidies. This leaves them vulnerable to changing economic winds. Historically in times of economic retrenchment the arts have been the first to suffer funding cuts. Rising costs and declining subsidies double the jeopardy.

Earned revenue is the income a performing arts organization generates from its own operations, primarily from box-office sales but also from such other sources as guarantees and program, and souvenir and beverage sales at performances. Average earned revenues per performance in 1984 were: theatre, \$2,268; music concerts, \$12,600; dance, \$6,333; and opera, \$13,432.

Costs, however, are escalating as in all sectors of the economy and in the performing arts,

expenses are rising faster than revenues. In 1984, total costs distributed per performance resulted in average costs per theatre performance of \$4,217, per music concert \$26,935, per dance company performance \$15,683 and per opera \$27,773. The income earned by theatre companies represented 57% of total revenue. Opera earned 50% of its total revenue, music, 48% and dance, 42%.

**Grants and subsidies** come from two main sectors, public (governments) and private. On average, grants represented slightly less than half (48%) of the total revenue of performing arts organizations in 1984. Governments at all levels are the major benefactors. In 1984, 76% of all grants and subsidies to the performing arts flowed from the public coffers. Of these, 43% were federal, 25% provincial and 8% municipal. The remaining 24% came from the private sector. As government purse-strings tighten, private sector support is gaining attention. Main sources of private funds are foundations, corporations, individuals, fund-raising campaigns by volunteer committees, bequests and endowments, bank interest and returns on investments.

### 15.2.1 National Arts Centre (NAC)

Parliament passed the National Arts Centre Act in 1966, creating a corporation to operate and maintain the centre, to develop the performing arts in the national capital area, and to assist the Canada Council in the development of the performing arts elsewhere in Canada. The centre, opened to the public in May 1969, stands on Confederation Square in the heart of Ottawa, a series of hexagonal halls built on landscaped terraces along the Rideau Canal.

The NAC has three main halls. The Opera, with 2,300 seats, was designed primarily for opera and ballet, with a full-size orchestra pit and advanced sound, lighting and other technical equipment. Its stage is one of the largest in the world, 56.7 by 33 metres, and its facilities can handle the most complicated changes required by touring companies. The 950-seat Theatre is ideal for Greek, Elizabethan or contemporary plays, and its stage can be adjusted from the conventional to the thrust stage style used for Shakespearean drama. Like the Opera, it is equipped for television, simultaneous translation and film projection, and its technical facilities are among the best available. The Studio is hexagonal and can seat up to 350 persons in a variety of seating plans. It is used for theatre productions, conferences and cabarets.

Other NAC facilities include: the Salon, a small hall seating up to 150 persons and used for chamber concerts, poetry readings and receptions;

a 900-car indoor garage; Le Restaurant, a restaurant and bar; Le Café, a smaller restaurant which in summer overflows to the sidewalks along the Rideau Canal; and several large rehearsal halls. On the terraces outside, the NAC plays host to art fairs, craft markets and summer band concerts.

The 46-member National Arts Centre orchestra gives concerts in the centre and on tours in Canada and abroad. Music programming includes about 80 concerts a year, featuring soloists and guest orchestras from Canada and around the world.

The theatre department has offered more than 600 performances of live theatre annually at the centre and on tour. Some plays represent Canada's regional theatre or come from outside the country.

The dance and variety department brings in some 100 different shows a year. The NAC is the only centre in Canada where every major Canadian dance company appears. It has been a showcase for performers from every part of the country. Altogether, in about 900 performances annually, the NAC entertains over 700,000 people.

## 15.3 Support for the arts

### 15.3.1 Federal support to the arts

The federal government spent about \$2.2 billion on culture in 1984-85, representing approximately 2% of total expenditures. The Canadian Broadcasting Corp. (CBC) alone accounted for over half of this amount. Discounting inflation, the federal spending on culture was up about 9% in real terms. In constant dollars, spending on performing arts, literary arts and libraries decreased while film and video, broadcasting, visual arts and crafts, and heritage resources reported increases.

The Department of Environment had the second largest budget for culture (12.4% of the total). Most of the funds were spent on historic and nature parks and sites. In descending order, the Department of Labour at 7.7%, the Department of Communications at 3.9%, and the National Film Board at 3.5% reported the next largest budgets of culture expenditures.

### 15.3.2 The Canada Council

The Canada Council was created by an Act of Parliament in 1957. Under the Canada Council Act, the object of the Council is "to foster and promote the study and enjoyment of, and the production of works in, the arts". It offers a program of financial assistance and special services, mainly to professional artists and arts

Chart 15.1

Major federal expenditures for arts and culture, 1984

\$1,180 million

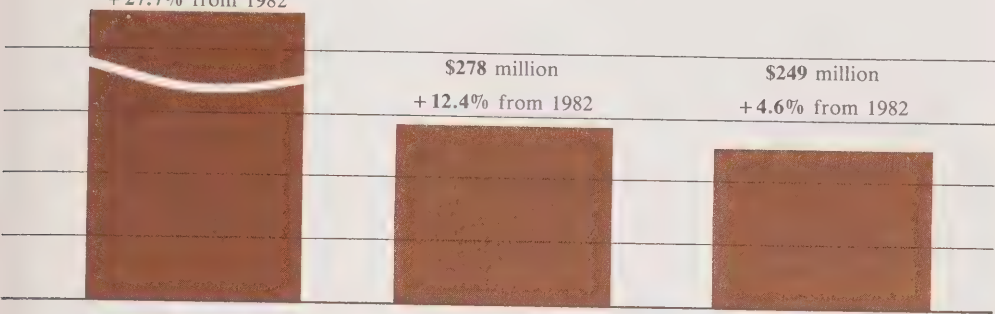
+ 27.7% from 1982

\$278 million

+ 12.4% from 1982

\$249 million

+ 4.6% from 1982



Broadcasting



Heritage resources



Literary arts

\$132 million

+ 65.6% from 1982

\$111 million

+ 61.3% from 1982

\$79 million

+ 8.4% from 1982



Film



Museums



Performing arts



organizations in the fields of dance, music, theatre, writing and publishing, visual arts and media arts.

The Council is headed by a 21-member board appointed by the federal government. The board's decisions on policies and programs are implemented by a staff headed by a director and an associate director, both appointed by the government of Canada. The Council and its staff rely heavily on the advice and co-operation of disciplinary advisory committees, and artists and arts professionals from all parts of Canada, who are consulted individually and in juries and selection committees. The Council works in close co-operation with federal and provincial cultural agencies and with the international cultural relations bureau of the Department of External Affairs.

The Canada Council Act established the Council as an independent body with control over its own policies and grant decisions. It reports to Parliament through the Minister of Communications. The Council has three funding sources: an annual appropriation from Parliament which represents almost 90% of its budget; the income from an endowment fund of \$50 million; and gifts and bequests.

In 1985-86 the Council disbursed \$68.4 million in grants and services, \$7.6 million of the total going to individual artists. The arts sections disbursed the following: \$9.5 million for dance, \$14 million for music, \$14.8 million for theatre, \$9.4 million for writing and publishing, \$4.5 million for visual arts, \$0.8 million for Art Bank purchases and \$3.2 million for media arts. The Explorations Program disbursed \$2.3 million.

Certain programs funded by the Department of External Affairs are administered by the Canada Council, namely the visiting foreign artists program and the rental of studios abroad for Canadian artists.

The Council offers a number of prizes and awards to distinguished members of Canada's artistic and scholarly communities: the Molson Prizes, the McLuhan Teleglobe Canada Award, the Glenn Gould Prize, the Governor General's Literary Awards, the Canada Council Children's Literature Prizes, the Canada Council Translation Prizes, and several other prizes in dance, music, theatre, visual arts and writing.

The Council administers the Killam Program of prizes and fellowships. The Izaak Walton Killam Memorial Prizes are awarded annually to eminent Canadian scholars in science, engineering or medicine. The Killam Research Fellowships are offered to scholars of exceptional ability engaged in research projects of broad significance in the humanities, social sciences, natural sciences,

medicine, engineering and studies linking any of these disciplines. In 1985-86 awards made under the Killam Program totalled \$2.3 million.

Finally, under the Canada Council Act the Council provides the secretariat for the Canadian Commission for UNESCO (United Nations Educational, Scientific and Cultural Organization). The Commission serves as a liaison agency between UNESCO and the Canadian public and private bodies, and carries out programs to further UNESCO objectives.

### 15.3.3 Provincial aid to the arts

Provincial governments spent a total of about \$1,164.1 million on culture in Canada in 1984-85. Libraries accounted for a major portion of this amount. Table 15.1 provides additional information.

**Newfoundland.** The culture, recreation and youth department operates arts and culture centres at St. John's, Gander, Grand Falls, Corner Brook, Stephenville and Labrador City. In addition to these centres for the performing and visual arts, the province also provides touring attractions for sponsor groups in approximately 15 locations in the province. The touring program consists of provincial, national and international companies, and artists who perform throughout the year.

The province also funds the Newfoundland and Labrador Arts Council, founded in 1980, which provides funding for amateur and professional arts organizations, and to individual artists. There is an annual arts and letters competition sponsored by the department, in addition to a small grants and awards program.

Through the public works department, the province operates an art acquisition program, enabling the province to acquire works by Newfoundland visual artists for its permanent collection and to display in government-owned buildings.

**Prince Edward Island.** The community and cultural affairs department is responsible for a broad range of policies and programs in support of heritage, museums, the arts and cultural industries. The provincial museums mandate is carried out on behalf of the department by the PEI Museum and Heritage Foundation. The PEI Council of the Arts is responsible for most arts funding, and the department supports six regional arts councils throughout the province. In addition, operating support is provided to a number of other agencies and organizations.

**Nova Scotia.** The culture, recreation and fitness department is responsible for cultural development, including performing arts, visual arts, cultural industries, heritage projects and multi-



Chart 15.2

**Provincial government expenditures on culture, 1984-85**

Thousand dollars



culturalism. The department supports eight cultural federations which act as service agencies for arts and cultural programs.

**In New Brunswick** a cultural development branch provides technical, financial and other resources for the development of the arts in the province.

The grants program is one aspect of the services offered and was created to enable New Brunswick residents to initiate and participate in a wide range of cultural activities. Most grant programs favour Canadian citizenship, New Brunswick residency, a commitment of personal resources, and evidence of support from other sources, as well as an established status at the professional or community level. Individuals meeting eligibility criteria may receive grants to assist with travel to cultural conferences or workshops. Visual artists may also receive assistance for purchase of their works by the provincial art bank or in solo exhibitions. Assistance for short- and long-term projects or for weekend workshops is available in the various disciplines. A variety of start-up, maintenance and project grants are also available to community and provincial organizations.

Professional companies and organizations in the performing and visual arts may be eligible

to receive operating or project grants. Assistance and services to such companies and organizations may be provided for touring, publishing and arts marketing.

**Quebec.** The cultural affairs department encourages development and extension of the arts and literature, and contributes to the development of museums and cultural industries and to heritage conservation and promotion. Several programs provide financial and technical support for research, creation and production and promote and disseminate Quebec's cultural projects both within and outside the province. Other programs are for the conservation of cultural property and the support of projects to create facilities such as museums, theatres and libraries.

The department also manages a network of nine music and dramatic-arts conservatories, the network of the Archives nationales du Québec (national archives), the Centre de conservation du Québec (conservation centre) and the Bibliothèque nationale du Québec (national library).

In addition, the cultural affairs department each year awards the Prix du Québec to four residents of Quebec who have distinguished themselves in literature (Prix Athanase-

David), the visual arts (Prix Paul-Emile-Borduas), the performing arts (Prix Denise-Pelletier) and film (Prix Albert-Tessier).

**Ontario.** The ministry of citizenship and culture provides assistance for a wide variety of cultural endeavours to stimulate cultural expression and cultural preservation and to foster the development of individual and community excellence. The ministry provides support to Canadian-owned Ontario-based cultural industries through the book publishing assistance program and through the Ontario Film Development Corporation.

The ministry allocates grants to the Ontario Arts Council, galleries and art service organizations. The Council in turn provides financial assistance to organizations and individual artists in a range of disciplines. Grants are also provided to the Ontario Heritage Foundation, community museums and local and provincial heritage organizations. The Foundation provides support for projects related to the preservation of Ontario's heritage. The ministry also provides funding for public libraries in Ontario as well as community information centres in support of their roles as the cultural centre of the community.

Financial support is also provided to major cultural agencies such as the Art Gallery of Ontario, Royal Ontario Museum, TVOntario, Ontario Science Centre, Royal Botanical Gardens, McMichael Canadian Collection, CJRT-FM, and Science North.

**Manitoba.** The culture, heritage and recreation department, directly and through its various branches and agencies, provides the means by which cultural, heritage and multicultural programs and activities, at all levels of endeavour, are developed, encouraged and sustained. Such major provincial institutions as the Winnipeg Art Gallery, the Ukrainian Cultural Centre, the Brandon Auditorium, The Manitoba Museum of Man and Nature, the Centennial Concert Hall and the Centre Culturel Franco-Manitobain, receive direct departmental support.

Programs at the community-based level, such as arts school, community arts councils, ethnocultural activities, and provincial-based heritage organizations, societies and museums are served by branches of the department.

The Manitoba Arts Council (MAC) extends support to professional arts organizations and individual artists in all disciplines, and provides a variety of programs directed to arts exposure, student aid and touring. Its access and arts ventures programs are available to non-professional artists and arts groups. In addition, the Manitoba Arts Gaming Fund Commission acts as an

advisory group to the MAC for the purpose of distributing lotteries funds designated for arts and culture.

**The Saskatchewan Arts Board** gives Saskatchewan people opportunities to engage in drama, the visual arts, music, literature, crafts and other arts. The arts board is autonomous, funded by the provincial government, earned revenue and donations. Two widely known arts board projects are a school of the arts, and a permanent collection of arts and crafts by provincial artists.

**Alberta Culture** is comprised of three divisions including cultural development, historical resources and cultural heritage. To ensure that cultural development becomes an enriching reality in the lives of the people of Alberta, the cultural development division promotes, encourages, supports and co-ordinates a variety of cultural activities.

Government and public efforts to preserve, study, and interpret the evidence of Alberta's human and natural history are co-ordinated by the historical resources division which operates 12 historic sites, the Tyrrell Museum of Paleontology in Drumheller and the Provincial Museum of Alberta in Edmonton. The archaeological survey of Alberta seeks to protect, preserve, research and educate the public about Alberta's prehistoric and historic archaeological sites. Museum services provides all museums in Alberta with advice and technical assistance in all aspects of museum development and operation.

The preservation, enhancement and development of artistic, historical and language resources by ethno-cultural groups in Alberta are promoted by the cultural heritage division which encourages ethno-cultural groups to share their traditions with others.

**The British Columbia Cultural Fund** was set up by statute in 1967. The act set aside \$5 million in an endowment fund; the interest was to be spent to stimulate the cultural development of BC people. An advisory committee was established to receive applications for cultural grants and to report their recommendations to the finance department. The amount of the endowment was raised to \$20 million in 1974. An advisory body, the British Columbia Arts Board, makes recommendations to the provincial government on the allocation of grants from the fund. Interest revenues from the endowment are supplemented with monies from the British Columbia Lottery Fund.

### 15.3.4 Canadian Conference of the Arts

The Canadian Conference of the Arts was established in 1945 as a national, non-govern-

mental, non-profit association to "ensure the lively existence and continued growth of the arts and the cultural industries in Canada."

Conference membership of 1,200 organizational and individual members includes a wide spectrum of artistic and cultural associations, organizations and institutions. Individual membership includes artists, arts administrators, educators, and other concerned arts supporters.

The conference endeavours to strengthen public support and enhance public awareness of the role and value of the arts. In short, it is an arts-based advocate for the arts.

## 15.4 Museums and galleries

Museums of Canada range from collections of local historical artifacts and objects to large government-operated institutions. Many larger museums, especially the components of the National Museums of Canada and the Royal Ontario Museum, are distinguished for research and publication of scholarly works and as cultural centres. They offer many services through exhibits, guided tours, lectures and scientific and popular publications.

Work with schools may involve classes in the museum or visits to the schools by museum lecturers with exhibits, guided tours for visiting classes, loans of materials to schools, and training student-teachers in use of the museum. For children, a number of museums have Saturday lectures and film showings, nature clubs and field excursions. Museum field parties provide research training to university students, and museum staff act as professional consultants to foreign scholars and institutions.

For adults, museums offer lectures, film shows and guided tours. Staff members give lectures to service clubs or other groups, and hobby clubs such as naturalist groups, mineral clubs and astronomy societies, which may use the museum as headquarters. Travelling exhibits are prepared for local fairs, historical celebrations and conventions. Some Canadian museums have regular radio or television programs. Some historical museums stage annual events to demonstrate arts, crafts or industries represented by the exhibits.

Public art galleries and art museums in the principal cities conduct Saturday classes and tours for school pupils and adults. Radio talks, lectures and concerts are provided by various galleries as well as travelling exhibitions for their surrounding areas.

Heritage institutions, including archives, historic sites, exhibition centres, planetariums, aquariums, botanical gardens and parks, also provide a rich assortment of heritage-related activities.

### 15.4.1 National Museums of Canada

The National Museums of Canada (NMC), a Crown corporation established in 1968 by the National Museums Act, incorporates in a single administration: the National Gallery of Canada, including the Canadian Museum of Contemporary Photography; the Canadian Museum of Civilization, including the Canadian War Museum; the National Museum of Natural Sciences; and the National Museum of Science and Technology, including the National Aviation Museum and the Agricultural Museum. All these institutions are located in the National Capital Region.

The NMC has fostered co-operation among Canadian museums by establishing a network of 25 associate museums, including the above-mentioned institutions, and 23 national exhibition centres. In 1972, the Corporation began implementing a national museum policy designed to ensure that museum collections are preserved and that public access to them is increased; five national programs were created to further the objectives of this policy.

In February 1982, the Canada Museums Construction Corporation was formed to be responsible for the construction of buildings to house the National Gallery of Canada and the Canadian Museum of Civilization.

Designed by Montreal architect Moshe Safdie, the new building for the National Gallery of Canada is being constructed as a joint venture with Parkin Partnership of Toronto. The building is scheduled to open in 1988 at Sussex Drive and St. Patrick Street in Ottawa's historic Byward Market area.

For the Canadian Museum of Civilization, the government approved an architectural design by Douglas J. Cardinal of Edmonton, in co-operation with Les architectes Tétrault, Parent, Languedoc et Associés of Montreal. The model was unveiled to the Canadian public in November 1983, and construction began early in 1984, in Parc Laurier, Hull, Que. The museum is expected to be open to the public in 1988. The building will give the museum four times the exhibition space now available in its present location at the Victoria Memorial Museum Building for its archaeological, ethnographic, folk art and historical collections.

In 1982, the government also approved the expenditure of \$18.4 million over three years for the construction of the first phase of a new building for the National Aviation Museum. The need for more suitable accommodations was imperative. Containing one of the world's finest aeronautical collections, the museum is located at present in three antiquated and inadequate World War II hangars.



A spectacular triangular-shaped building will provide space for aircraft display, collection storage and restoration, a foyer and a boutique, as well as an area for the Royal Canadian Air Force Hall of Tribute. The official opening was scheduled for September 1987.

**The National Gallery of Canada**, associated with the founding of the Royal Canadian Academy of Arts in 1880, was incorporated by an act of Parliament in 1913. Its function was to encourage public interest in the arts and to promote the interests of art throughout the country.

The gallery's collections, ranging in time from the 12th century to the present, have developed, along national and international lines with Western European art chosen to illustrate some of the roots of Canada's own cultures, the largest and most comprehensive collection of Canadian art in existence. Of the 40,000 works of art in the collections, 75% are Canadian. Many old masters are included in the gallery's European collection. Some Chardins, a Rembrandt and a Rubens were acquired from the famous Liechtenstein collection. The Massey Foundation presented its collection of English painting to the gallery in the late 1940s and the Vincent Massey bequest of 100 works by Canadian artists was received in 1968. Other gifts and bequests include the Bronfman gift of drawings (1973), the Henry Birks collection of Canadian silver (1979), the Max Tanenbaum collection of Indian and Tibetan art (1979) and the Phyllis Lambert gift of Walker Evans photographs, bringing the National Gallery's collection of photographs to 15,700 works.

Visitors may view special exhibitions and permanent installations, attend lectures, gallery talks, films, guided tours and special performances and enjoy the gallery's publications. The gallery participates in international exhibitions and prepares major exhibitions of Canadian art in collaboration with the Department of External Affairs. It also brings exhibitions from abroad to Canada.

**The Canadian Museum of Civilization** conducts research in Canadian studies and collects, preserves and displays objects which reflect Canada's cultural heritage. Activities extend across the country through field research programs and publications. Staff includes archaeologists, ethnologists, anthropologists, historians, folklorists, musicologists, curators and specialists in various other museum disciplines.

In the Victoria Memorial Museum Building in Ottawa, there are eight permanent exhibition halls arranged thematically and showing historical progression and continuity. "The Trail of Mankind" describes humankind's development and

the universal patterns of our existence from early times to the present, while "Canada before Cartier" presents the results of archaeological research in our country. The four ethnology halls are devoted to the Inuit of the far North, the Iroquois of the Great Lakes and the St. Lawrence Basin, and Indians of the Central Plains and of the Northwest. Finally, "A Few Acres of Snow" depicts the struggles of the first explorers and settlers, while "Everyman's Heritage — The Canadian Odyssey" illustrates our multicultural heritage in the form of a journey along the road of life.

The Canadian War Museum, associated with the Canadian Museum of Civilization, highlights the military heritage of Canada. The collections range from cap badges and tanks to the finest assemblage of war art in the world. This museum studies the many aspects of human conflict from a military history perspective. Three floors of exhibit galleries convey four centuries of armed struggle by Canadians from the first European contact to World War II. Annual special exhibits focus on various chapters of Canada's military past from the role of women in war to the wartime work of artists such as Alex Colville. In addition, travelling exhibitions, a historical publications series and educational programs disseminate research and collections to an international audience.

**The National Museum of Natural Sciences**, located in the heart of the National Capital Region, presents six permanent exhibit halls: "The Earth", "Life Through the Ages", "Birds of Canada", "Mammals in Canada", "Animals in Nature" and "Plant Life". Each of these galleries introduces the visitor to both microscopic and larger-than-life details of our natural world, using varied communications techniques such as computers, video, stills, touch displays, workshops, exhibits, concerts and real specimens. More than 185 volunteers provide interpretative visits for students, teachers and special groups. Travelling exhibits, lectures, films, books and free publications bring the National Museum of Natural Sciences to its visitors in Ottawa and throughout the country.

The five scientific divisions: botany, invertebrate zoology, vertebrate zoology, mineral sciences, paleobiology and the zooarchaeological identification centre maintain the museum's collections, which are among the best in the world. Fieldwork and laboratory research are actively supported by the museum, both through its staff and through associated scientists from outside organizations. Throughout the years, the museum has produced hundreds of scientific publications, making research results available internationally.



**The National Museum of Science and Technology** has had more than 10 million visitors since it opened in 1967. It presents scientific discoveries and technological advances in a hands-on manner that allows visitors to participate in and get close to the exhibits, objects and machines on display. Visitors experience the same dynamic feelings that encouraged the scientists and technicians. In the physics hall, for example, they can perform experiments and test their physical abilities and dexterity.

The halls are dedicated to ground transportation, communications and space, astronomy, time pieces, computer technology, agriculture and graphic arts.

The public programs and educational activities of the museum include daily demonstrations, guided interpretive programs on about 30 subjects, a number of extension programs, both regional and national, and an evening astronomy program in which participants view the stars through Canada's largest refracting telescope. In addition, the museum issues several publications (pamphlets and monthly sky charts, for example), takes part in agricultural fairs and air shows and, during the summer, in co-operation with the National Capital Commission, the popular steam train excursions are offered to lovers of the old way of transportation. The museum has a specialized library of about 20,000 books, journals and reference works.

Visitors interested in aviation may tour the National Aviation Museum's collection at Rockcliffe airport. It contains about 100 aircraft, along with a collection of historic engines and other artifacts, illustrating the evolution of the flying machine in peacetime and in war, and the place the airplane played in Canada's development. Following the official opening of the new building in September 1987, the main exhibit hall will feature a "Walkway of Time" that will guide the visitor through the eras of aviation from the turn of the century to the present. The following eras will be represented: "Pioneer", "World War I", "Between the Wars", "World War II" and "Post World War II".

The Agricultural Museum was created in October 1983 as the result of a joint effort by Agriculture Canada and the National Museum of Science and Technology. It is, to some extent, an extension of the agricultural technology division of the National Museum of Science and Technology. It is located at the Central Experimental Farm in Ottawa, on the upper floor of the dairy barn which contains the Agriculture Canada howcase herd. The museum is in an ideal location, surrounded by fields, and with magnificent lower gardens and an arboretum nearby.

### 15.4.2 National programs

The Canadian Conservation Institute (CCI) is engaged in the conservation of cultural artifacts, technical consultation, information and research on the preservation of collections for museums across Canada. It also provides advanced training of conservation personnel from museums and art galleries.

The Canadian Heritage Information Network (CHIN) provides a wide range of services to help museums document and manage information about their collections. The network maintains a centralized automated information management system which contains more than 2.4 million records on artifacts and specimens in the collections of about 150 museums and other related institutions. CHIN also manages a national inventory of the collections of 33 museums and art galleries, which is accessible to all its users.

The international program encourages interest in international museum affairs and facilitates the exchange and circulation of exhibitions to and from Canada.

The museum assistance programs provide financial and technical assistance to non-profit museums, galleries and related institutions, in keeping with the objectives of the National Museum Policy to preserve and increase public access to Canada's cultural heritage. In 1986-87, \$8.4 million were granted to help in the following areas: public programming, conservation, exhibitions, registration of collections, special activities, training, upgrading of facilities and purchases of equipment.

The mobile exhibits program operates three museumobiles which provide a museological experience to Canadians not adequately served by museums. Each caravan — Canada North, Canada West and Atlantic Canada — consists of three 14-metre tractor trailers and contains exhibits depicting the geographic, archaeological, social and cultural history of a region of the country.

## 15.5 Books

### 15.5.1 Book publishing

The book market in Canada includes books produced by Canadian publishers for domestic sale and books imported for sale in Canada. Estimated sales from all publishers, exclusive agents and other importers reached \$1,342 million in 1984-85, of which 76% came from imported books. Estimated sales of publishers' books published in Canada increased by less than one percentage point between 1983-84 and 1984-85, while estimated sales of their imported books climbed by 4.5 percentage points during the same period.

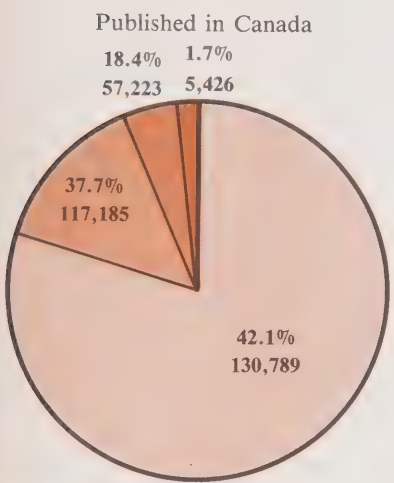
Chart 15.3  
New books published, by commercial category and citizenship of author, 1984



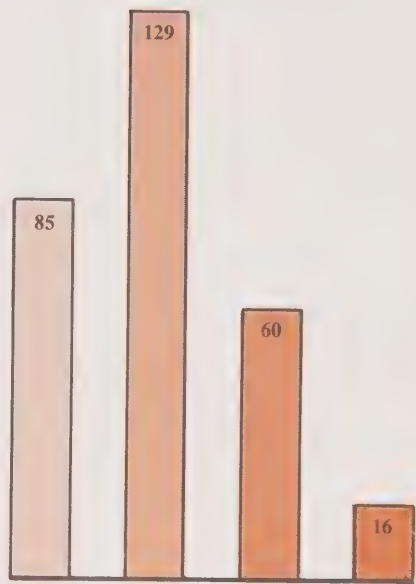
Chart 15.4

Net domestic book sales of publishers, by commercial category, 1984

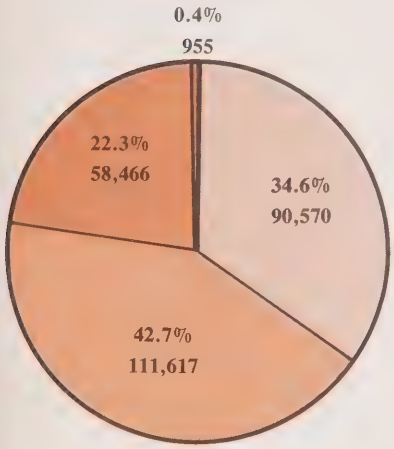
Sales of books (\$'000)



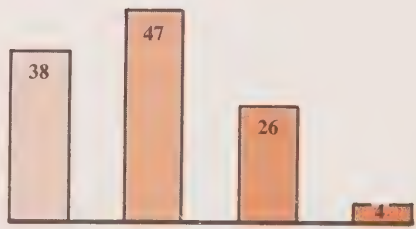
Number of firms publishing Canadian books



Imported



Number of firms distributing imported books



Textbooks  
Tradebooks

Reference/professional  
Unspecified

Information collected from 201 publishing firms, surveyed by Statistics Canada, indicates that sales of their own books reached \$310.6 million in 1984-85. Publishing firms also sold \$261.6 million worth of imported books; their total book sales therefore reached \$572.2 million. A total of \$90.9 million went to 73 French-language firms; the remaining \$481.4 million was earned by English-language firms. Within this sector, foreign-controlled firms accounted for 65% of total sales. Overall, French-language firms attained average sales per firm of \$1.2 million, while the comparable figure for English-language firms was \$3.8 million. Books written in English made up 74% of Canadian-produced book sales and 85% of imported book sales.

The publishing activities of Canada's book publishers take place in three main markets: textbooks (both at the elementary-secondary and postsecondary levels), tradebooks (fiction, non-fiction, self-help, general interest books) and reference and professional books (dictionaries, atlases, specialized texts). During 1984-85, textbooks generated \$130.8 million, or 42% of sales of Canadian-published books. Tradebooks accounted for \$117.2 million in sales (38% of Canadian-published book sales), while reference and professional works published in Canada registered sales of \$57.2 million (18% of total sales). The remaining 2% of sales were unspecified by type of book.

Publishers' importing activities brought them an additional \$261.6 million in sales. Tradebooks accounted for 43% of these sales, while textbooks and reference books made up 35% and 22%, respectively, of the total.

Canadian-based publishing firms published approximately 4,783 new titles in 1984-85; 65% of these were written in English, 33% were written in French, and 2% were either bilingual works or books written in other languages. Tradebooks were by far the type of book most often published in 1984-85, accounting for almost 70% of all new books. New textbooks made up 21% of all new titles released, with the majority of books for the elementary-secondary level.

Of all new books released in 1984-85, 57% were written by a Canadian citizen or landed immigrant and three-quarters of these were published by Canadian-controlled firms.

**Copyright protection** is governed by the Copyright Act (RSC 1970, c.C-30) in force since 1924. Protection is automatic without any formality, but a system of voluntary registration is provided by Consumer and Corporate Affairs Canada. Copyright exists in Canada in every original literary, dramatic, musical and artistic work and

in contrivances by means of which sounds may be mechanically reproduced. The term for which the copyright exists is, except as otherwise expressly provided by this act, the life of the author and a period of 50 years after death.

## 15.6 National archives and library services

**The National Archives of Canada**, established in 1872 (formerly known as the Public Archives of Canada), operates under the direction of the dominion archivist by authority of the Public Archives Act. As a research institution, it is responsible for acquiring nationally significant documents relating to the development of Canada, and for providing research services and facilities to make this material available to the public. Administratively, it promotes efficiency and economy in the management of government records.

The holdings of the Public Archives are extremely diverse. They include private papers of individuals and organizations relating to the society, culture, economy and political development of all periods of Canadian history and copies of documents relating to Canada held in France, England and other countries. Extensive records relating to the departments and agencies of the federal government are retained, as are large collections of visual materials, including photographs of historical relevance, both government and private, as well as documentary paintings, prints, watercolours, medals and heraldic insignia. The archives collects film, television and sound recordings as well as automated public records and machine-readable archives from the private sector. It holds maps and plans pertaining to the discovery, exploration and settlement of Canada and its topography, as well as current topographical maps of other countries. Its library contains more than 80,000 volumes on Canadian history, including pamphlets, periodicals and government publications.

Documents may not be taken out on personal loan, but may be consulted in the archives building. A 24-hour-a-day service is provided for accredited researchers who are researching in textual material. Reproductions of material are available for a moderate fee. Many documents on microfilm may be obtained on interlibrary loan. Archival material is also presented on microfilm, slides and microfiche, in publications and in travelling exhibitions.

A records management branch helps federal departments and agencies in their own records management. At records centres in major Cana-



dian cities, it provides storage, reference service and planned and economical disposal of dormant federal records.

Branch offices of the Public Archives of Canada are in London, England and Paris, France.

**The National Library of Canada**, established in 1953, now operates under the National Library Act of 1969 and its amendments. It also administers legal deposit regulations which require that two copies of most current Canadian publications be deposited with the library.

In 1983 Dr. Guy Sylvestre, director of the library since 1968, retired. Under his leadership the library had made many advances in development of collections, services to users and use of new technology to enhance service and promote interlibrary co-operation. Dr. Marianne Scott became National Librarian in April 1984 and is fostering close ties with the Canadian library community in areas of networking, resource-sharing, conservation and library research.

The National Library supports Canadian studies with extensive collections of Canadian books, periodicals, newspapers, government documents, microform and non-book materials. Foreign materials in the humanities and social sciences complement its Canadian holdings. In 1986 the library had more than 1.1 million volumes of monographs, over 2.4 million microforms, including 76,000 Canadian theses, more than one million issues of periodicals, the largest collection of Canadian newspapers in Canada, over 2.2 million official publications, and an extensive collection of Canadian music scores, recordings and manuscripts.

The library issues *Canadiana*, the national bibliography, in microfiche and tape versions as well as in print. It is searchable on-line through the CAN/OLE system of the Canada Institute for Scientific and Technical Information.

The library facilitates the use of the nation's total library resources on interlibrary loan. A Canadian union catalogue, key to the main library resources of the country, lists about 5.5 million volumes in almost 350 university, public, government, and other special libraries. Since 1980 new accessions have been added on-line to the DOBIS data base; in 1985-86 over 270,000 were received. In 1983 work was begun on a union catalogue of special format materials such as Braille, and talking books for print-handicapped individuals in Canada; by 1986 entries numbered 34,000.

Using the union catalogues and other on-line print sources, staff in 1985-86 replied to over 10,000 requests from libraries for the location of a specific book. Information Technology Services promotes networking in the Canadian library

and information community in order to support nation-wide resource sharing. International programs facilitate the exchange of bibliographic data between countries.

The library's reference and consultation services provide back-up to other Canadian libraries in social sciences and the humanities, with Canadian emphasis. These services are also available to individual researchers who require access to the library's resources or staff expertise in such areas as music, conservation, Judaica, library science, Indian rights and Canadian children's literature. In 1985-86, staff answered more than 50,000 reference queries from Canada and abroad.

The library provides, to provincial library agencies, loan collections of books in languages other than English and French, and assists Canadian libraries to develop their collections through a book exchange centre. For Canadian researchers without access to computerized search services, the library provides, for a minimal charge, both a current awareness service in the social sciences and humanities and retrospective bibliographies prepared from machine-readable data bases. National Library services are in both official languages.

**Public libraries** are organized under provincial legislation which specifies the method of establishment, the services to be provided and the means of support. Municipalities may organize and maintain public libraries or join together to form regional libraries according to provincial legislation. Provincial public library agencies advise local and regional libraries and distribute grants.

Table 15.10 gives preliminary statistics of Canadian public libraries from annual surveys. In 1984 a total of 3,170 public library service points indicated that they held about 54 million books, reported around 158 million direct circulations, employed 1,878 full-time professional librarians, and spent about \$402 million for their total operations.

## 15.7 Canadian films

### 15.7.1 National Film Board (NFB)

The National Film Board of Canada (NFB) was established by an act of Parliament in 1939 to "produce and distribute . . . films designed to interpret Canada to Canadians and to other nations". Since it was established, the NFB has produced 17,000 audio-visual documents, including more than 6,000 original films. Nearly 100 new productions are added to this national repertoire annually. The NFB has received, over the years, more than 2,500 international awards, which have earned it an enviable world reputation.

The NFB's documentary, animated and feature films are shown in theatres and on television. They are also available through the NFB's offices across Canada to members of the public, educators and community associations wishing to borrow, rent or purchase them in 16 mm or on video cassettes. The NFB also produces slide presentations, filmstrips and other documents to meet the needs of the education sector.

Recently, the NFB has been especially interested in research and development in the area of film and video technology, and in the establishment of training programs for young film-makers. In addition, the NFB is establishing 12 Canadian audio-visual centres, six of which will contain production, marketing and distribution offices.

The productions of the National Film Board of Canada are also distributed worldwide through the Board's offices in New York, London, Paris and Montreal.

### 15.7.2 Telefilm Canada

Telefilm Canada, formerly known as the Canadian Film Development Corporation, was established by the federal government in 1967. The Corporation aims to foster and promote the development of a feature-film industry and an independent television production industry in Canada. Telefilm currently operates two broad categories of programs — one related to the feature-film industry, and the other related to independent television production — each with different eligibility requirements.

**Feature film.** The Feature Film Fund is designed to stimulate investment in the production and distribution of high-quality, culturally relevant Canadian dramatic feature films, made by the private sector, and destined for commercial theatrical release.

Telefilm Canada may participate financially in the development, production and marketing of productions. In order to activate the Corporation's financial participation, there must exist a contract between an eligible producer and an eligible distributor guaranteeing the film's theatrical release in Canada within one year of completion.

In addition to supporting individual projects, Telefilm Canada may also direct its financial participation to eligible companies on packages of projects. The Corporation will provide assistance to develop international co-productions and pre-sales, and to enhance the foreign sales and promotion of Canadian productions. Productions financed through the Feature Film Fund cannot be financed through the Canadian Broadcast Program Development Fund, nor vice-versa.

Financial assistance through the Feature Film Fund is intended to complement other sources of production and distribution financing and may be negotiated as equity investment, long-term corporate loans, secured loans or non-interest bearing advances. A Versioning Assistance Fund is also administered by Telefilm Canada.

*Script and project development.* The Corporation provides recoverable advances to producers so that scripts may be prepared, budgets developed, and directors and performers secured.

*Interim financing.* Interim loans allow producers to begin production before equity financing is in place. Canadian distributors and foreign sales companies can also access the Interim Financing Fund.

The International Marketing Assistance Fund was established to help increase the competitiveness of Canadian productions in the international marketplace, and to enhance the visibility of Canadian foreign sales companies and to assist them in developing their marketing and promotional strategies. Finally, the festivals office is responsible for co-ordinating Canadian participation in film festivals around the world and for establishing national film representation abroad. It also administers a grants program to Canadian Film Festivals.

**Independent television production.** The Corporation participates financially in the Canadian Broadcast Program Development Fund, by means of equity investment, secured loans or loan guarantees, in high-quality Canadian productions in the categories of drama, variety, documentary and children's programming. Each project must meet Telefilm Canada Canadian-content standards and must have secured a guarantee from a Canadian over-the-air broadcaster to broadcast the program within two years of completion. For the purpose of the Canadian Broadcast Program Development Fund, Canadian over-the-air broadcasters are understood to be the CBC/Radio-Canada, all private over-the-air stations or networks and provincial educational authorities which hold a television broadcasting licence.

**Co-productions.** Canada has official co-production treaties with 10 countries: France, Israel, Italy, the Federal Republic of Germany, the United Kingdom, Belgium, Algeria, Spain, Czechoslovakia and China. Such treaties allow producers from two or more countries to share in the creative, technical, and financial aspects of a production while enjoying the benefits accorded a national production in each country (such as direct aid, tax incentives, and quota system).

Telefilm Canada administers these treaties and can participate in the projects produced under them. The Corporation receives and evaluates project applications for recognition as official co-productions. Based on Telefilm Canada recommendations, the Minister of Communications either approves or rejects such applications. While Telefilm Canada advises on all official co-productions, it does not necessarily participate financially in them. The Corporation's participation is based on a more detailed analysis of the merits of the production. The Corporation, in co-operation with the Department of Communications, negotiates and re-negotiates existing and potential treaties.

### 15.8 Home entertainment and recreation

**Communications services.** Almost all Canadians have access to television, radios and telephones. Of 9.33 million households in Canada in May 1986, 98.6% had television sets, 99.1% had radios, 98.1% had telephones, 35.1% had video recorders, and 10.3% had home computers.

**TV viewing.** The average Canadian spends 50% more time watching television than on any other leisure activity. In 1985, Canadians spent an average of 23.5 hours per week watching television, a level which was virtually unchanged from the preceding five years. In 1985, adult women spent approximately four hours more a week watching television than did adult men. Nationally, teenagers and young children (ages 2-11) were the lightest users of television, with certain variations from province to province. Residents of Newfoundland were the heaviest users of television across virtually all demographic groups, while residents of Alberta reported the lowest average viewing hours.

Canadians tuned to foreign (primarily American) stations for almost a quarter of their total television viewing. In addition, 60% of the viewing of Canadian stations was spent watching foreign programs, up from 55% a year earlier. Overall viewing of foreign-produced programs rose to almost two-thirds of total viewing time in 1985, despite a slight decrease in tuning to American stations.

Foreign drama was the single-most popular program category among Canadians. In combination with foreign comedy shows, these programs amounted to over half of all television viewing in Canada. Viewing of Canadian programs was concentrated in news and public affairs shows and, to a lesser extent, sports telecasts. News and public affairs programs alone made up almost half of all viewing of Canadian programs.

### 15.9 Fitness and amateur sport

The Fitness and Amateur Sport Act was passed in 1961 to encourage, promote and develop fitness and amateur sport in Canada. Since then, Canadians in general have become increasingly aware of the benefits of adopting an active lifestyle and amateur athletes have shown that they can achieve success in world sport competition.

Two program areas, Fitness Canada and Sport Canada, help fulfill the dual role, primarily through the provision of financial contributions to national sport and fitness associations, agencies, institutions and special organizations carrying out specific sport or fitness-oriented projects throughout Canada.

**Fitness Canada** promotes physical activity through its financial contributions, special programs, resource materials and consultative services, with the purpose of realizing a better fitness level for all Canadians through quality fitness leadership and mass participation in physical activity. While supporting and delivering a variety of programs aimed at the general public, Fitness Canada has also directed a number of recent initiatives at specific target populations, such as youth, employee groups, older adults and the disabled.

In conjunction with International Youth Year (1985), several innovative projects were implemented to promote the physical activity and fitness of youth, principally a youth symposium that was held in Ottawa and a unique rock music video that carried the fitness message to Canadian adolescents. To promote the benefits of fitness in the workplace, Fitness Canada has continued its partnership with the Canadian Chamber of Commerce and its nation-wide membership.

As a result of the first Federal-Provincial Ministers Conference on Fitness, a number of task forces were created to study such priorities as employee fitness, youth, older Canadians and National Physical Activity Week.

Millions of Canadians (more than six million in 1986) actively took part in over 12,000 events across Canada organized by more than 200,000 volunteers in the annual National Physical Activity Week (now called Canada's Fitweek). Events were designed to attract those who do not participate regularly in physical activity and developed to promote physical activities that can be practiced throughout one's lifetime.

Financial support totalling more than \$7.5 million from Fitness Canada was provided to major national fitness and recreation associations, including the Canadian Association for Health, Physical Education and Recreation (CAHPER), the Canadian Association of Sport Sciences, the Canadian Intramural Recreation



Chart 15.5  
Percentage distribution of television viewing time, by type of program and origin of station, 1985





Association, the Canadian Parks/Recreation Association, PARTICIPaction, the National Council of YMCAs and the YWCA of Canada.

**Sport Canada** provides leadership, overall policy direction and financial support to Canadian amateur sport at the national and international levels. By giving guidance in the areas of administration, technical program development and planning to the organizations that serve Canada's athletes and coaches, Sport Canada seeks to stimulate the highest possible level of achievement at the international level and also holds an important commitment to the development of a strong domestic sport system.

Sport Canada funds and works closely with some 65 national sport organizations in Canada, including national sport governing bodies, responsible for Olympic and non-Olympic disciplines, and others involved in providing support services, in areas such as administration, coaching and sport medicine, or co-ordination, to enable Canadian participation in Olympic, Pan American, Commonwealth or World University Games and other major international sport contests. Sport Canada co-ordinates the activities of these organizations to ensure a strong, integrated delivery system that encourages general participation and high performance sport development.

Through its contributions or "core support" program, Sport Canada assists recognized sport organizations in the areas of association management, technical development and, particularly, high performance sport. This funding covers the payment of salaries for professional, technical and coaching staff, helps defray major costs associated with annual general meetings, clinics and seminars for the training and certification of coaches and officials, national championships and international competitions and assists in the areas of promotion, communications and marketing.

**1988 Winter Olympics.** The program "Best Ever", is aimed at assisting the development of Canada's 1988 Olympic teams. Funds channelled through "Best Ever" programs will enhance training and competition opportunities for Canadian athletes, enable better talent identification programs and permit a special focus on sport science and medicine programs. Additional benefits will be available to athletes through the Sport Canada High Performance Sport Centres and Athlete Assistance Programs.

**The Athlete Assistance Program** helps Canadian athletes meet expenses incurred through intensive training programs and competition schedules. The program recognizes that these expenses increase as athletes strive to attain ever higher levels of achievement and ranks Canada's athletes

accordingly. Payments to Canada's top 750 amateur athletes average \$5 million per year. Other major programs of Fitness and Amateur Sport also include the Women's Program and the Program for the Disabled, two programs that are funded jointly by Fitness Canada and Sport Canada.

**The Women's Program** seeks to improve the status of women in the fields of fitness and sport in Canada, with emphasis on increased involvement of women as leaders at the national level. Through the Women in Sport and Fitness Leadership Program, a revised training program was initiated for women in sport administration and elite coaching.

**The Program for the Disabled**, provides assistance to national organizations that deliver sport and recreation opportunities to Canada's disabled population. The Canadian Federation of Sport Organizations for the disabled is the umbrella agency for disabled sport in Canada and it is through a financial contribution to this organization that Sport Canada assists many of the projects that are carried out on behalf of the disabled in Canada.

## 15.10 Tourism

Tourism affects the lives of almost all Canadians. It has an impact on lifestyles and provides a change of pace from contemporary social pressures. It also can contribute to national unity by increasing understanding among people of different regions and by distributing the national income among different areas of the country. The economic effects of tourism are dealt with in Chapter 17, Merchandising and services.

Tourism has a role to play in the cultural evolution of Canada. Many cultural activities, such as theatre, music and dance, rely on the attendance of tourists to augment their revenues. For instance, the Charlottetown Festival draws half of its annual audience from the United States; the theatre festivals of Stratford and Niagara-on-the-Lake draw more than one-third of their audience from the US. In addition, many heritage and historical restorations have been undertaken with the goal of attracting tourists — examples include such historic sites as Louisbourg in Nova Scotia and Le Vieux Port of Montreal and the renovation of urban water-front areas or historic buildings such as those found in Halifax, Ottawa, Vancouver or Dawson City.

Statistics have demonstrated that destinations exhibiting cultural and historic attractions have maintained or increased their popularity at the expense of the more traditional destinations — those that rely on purely geographic character-

istics, such as climate, water and topography, to attract visitors. Tourists are becoming more discerning and demanding about the value for money spent and are putting more emphasis on the tourism/culture connection. Recent promotional campaigns in the US, undertaken by a consortium of arts companies, museums and government agencies, have focused on the tourism-arts connections of the major cities across Canada.

A 1985 study found that Canada's strength as a vacation destination, for visitors from the US, was the fact that it was a foreign destination, close and familiar, yet different. The essential difference is Canada's British and French heritage, the ethnic diversity of the people and their regional and local traditions. Canada's strength as a pleasure travel destination is that it provides a different set of experiences from those offered in the United States. Continued growth and developments within the creative and

performing arts communities of Canada can only assist in aiding the evolution of a distinctive and therefore stronger domestic tourism industry.

While not all tourist travel can be considered as leisure in nature — with business, conference and personal travel being the most notable exceptions — leisure activities account for a significant proportion of the time spent while travelling. The activities of travellers have been reported in the 1984 Canadian travel survey conducted by Statistics Canada and sponsored primarily by Tourism Canada. At all times of the year, visiting friends and relatives was the leading activity for just over one-half of all trips of 80 km in Canada. Other frequently reported activities were shopping (31% of all person-trips), sightseeing (16%) and nightlife (13%). Swimming was the most popular sporting activity (11%). Cross-country and downhill skiing accounted for 12% of all person-trips in the first quarter of 1984.

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- 15.2.1 Public Relations, National Arts Centre.
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- 15.5.1 Communications Branch, Department of Consumer and Corporate Affairs (Copyright protection).
- 15.6 Publication Services, National Archives of Canada; Library Documentation Centre, National Library of Canada.
- 15.7 Communications Branch, National Film Board of Canada; Telefilm Canada.
- 15.8 Department of Communications (Communications services); Education, Culture and Tourism Division, Statistics Canada.
- 15.9 Promotion and Communications, Fitness and Amateur Sport Branch, Department of Health and Welfare.

TABLES

.. not available

not appropriate or not applicable

— nil or zero

-- too small to be expressed

e estimate

p preliminary

r revised

certain tables may not add due to rounding

15.1 Federal and provincial government expenditures on culture, fiscal years ended March 31 (thousand dollars)

Function	Year	Federal government expenditures				Total
		Operating	Capital	Current grants, contributions and transfers	Capital grants, contributions and transfers	
Libraries	1982-83	25,621	395	921	—	26,937
	1983-84	29,114	479	90	—	29,683
Museums	1984-85	29,656	471	42	68	30,237
	1982-83	55,080	2,641	8,847	1,997	68,565
	1983-84	60,768	11,511	10,512	2,640	85,431
Public archives	1984-85	67,907	32,994	7,773	1,896	110,570
	1982-83	33,419	1,919	253	—	35,591
	1983-84	36,662	1,650	554	—	38,866
Heritage resources <sup>1</sup>	1984-85	38,554	2,668	—	61	41,283
	1982-83	147,700	96,295	3,185	—	247,180
	1983-84	164,873	112,375	4,749	—	281,997
Literary arts <sup>2</sup>	1984-85	180,656	95,539	1,178	405	277,778
	1982-83	220,191	—	18,362	—	238,553
	1983-84	223,179	—	19,350	—	242,529
Performing arts	1984-85	226,187	—	22,276	992	249,455
	1982-83	26,188	2,268	42,637	2,063	73,156
	1983-84	27,893	2,921	43,684	3,620	78,118
Visual arts and crafts	1984-85	27,778	1,219	48,097	2,198	79,292
	1982-83	404	—	9,173	—	9,577
	1983-84	195	—	9,373	152	9,720
Film and video	1984-85	380	70	10,200	244	10,894
	1982-83	68,463	2,204	8,636	227	79,530
	1983-84	76,710	3,160	15,398	45	95,313
Broadcasting	1984-85	80,201	3,398	48,101	27	131,727
	1982-83	856,888	63,930	3,278	—	924,096
	1983-84	953,506	70,721	7,670	—	1,031,897
Sound recording	1984-85	1,076,086	95,143	8,398	—	1,179,627
	1982-83	—	—	225	—	225
	1983-84	—	—	231	—	231
Multiculturalism	1984-85	44	—	216	—	260
	1982-83	4,779	5	15,050	250	20,084
	1983-84	6,080	31	18,937	50	25,098
Other	1984-85	7,702	89	18,549	110	26,450
	1982-83	17,699	—	8,203	839	26,741
	1983-84	17,126	—	9,239	1,136	27,501
	1984-85	16,355	1,411	17,293	2,439	37,498
Total <sup>3</sup>	1982-83	1,456,432	169,657	118,770	5,376	1,750,235
	1983-84	1,596,106	202,848	139,787	7,643	1,946,384
	1984-85	1,751,506	233,002	182,123	8,440	2,175,071
Provincial government expenditures, 1984-85						
	Nfld.	PEI	NS	NB	Que.	Ont.
Libraries <sup>4</sup>	10,022	3,254	16,032	12,526	127,120	133,143
Museums	849	724	5,394	1,284	23,425	58,047
Public archives	293	119	1,001	881	4,182	1,735
Heritage resources <sup>1</sup>	936	2,495	2,284	4,222	27,911	27,489
Arts education	2	145	4,905	—	11,200	9,488
Literary arts <sup>2</sup>	32	102	99	285	6,019	2,456
Performing arts	5,120	1,407	1,970	531	32,170	32,575
Visual arts and crafts	248	18	988	961	5,111	3,802
Film and video	2	248	76	51	12,421	1,429
Broadcasting	1	—	307	—	65,475	46,133
Sound recording	—	—	20	—	1,384	31
Multiculturalism	—	10	136	27	2,549	3,218
Other	126	18	1,841	4,357	52,949	6,930
Total	17,631	8,540	35,053	25,125	371,916	326,476

### 15.1 Federal and provincial government expenditures on culture, fiscal years ended March 31 (thousand dollars) (concluded)

Function	Provincial government expenditures, 1984-85						
	Man.	Sask.	Alta.	BC	YT <sup>2</sup>	NWT <sup>2</sup>	Canada
Libraries <sup>4</sup>	17,713	20,267	41,050	60,383	1,152	1,234	443,896
Museums	4,815	3,190	26,789	5,631	169	1,161	131,478
Public archives	2,083	907	1,071	1,514	368	199	14,353
Heritage resources <sup>1</sup>	20,589	16,126	20,808	18,444	706	367	142,377
Arts education	473	722	607	5,684	—	—	33,226
Literary arts <sup>2</sup>	608	557	805	184	9	—	11,156
Performing arts	5,199	1,635	28,185	2,905	56	—	111,753
Visual arts and crafts	939	719	2,872	881	23	107	16,669
Film and video	783	132	1,008	211	—	—	16,361
Broadcasting	206	—	18,733	3,352	—	431	134,638
Sound recording	39	—	—	—	—	—	1,474
Multiculturalism	3,857	871	2,949	161	—	—	13,778
Other	12,347	1,327	10,637	1,996	99	314	92,941
<b>Total</b>	<b>69,651</b>	<b>46,453</b>	<b>155,514</b>	<b>101,346</b>	<b>2,582</b>	<b>3,813</b>	<b>1,164,100</b>

<sup>1</sup> Includes historic parks and sites, nature/provincial parks, and other heritage activities.

<sup>2</sup> Includes payments to the Canada Post Corporation for costs associated with publication mailings.

<sup>3</sup> For comparability, certain figures have been adjusted. For example, excluded are expenditures by the Canada Employment and Immigration Commission related to training and employment development in the culture sector because these data were collected, for the first time, for the 1984-85 fiscal year.

<sup>4</sup> Includes national, public, school, university and college libraries.

### 15.2 Support to the arts by the Canada Council, 1975-76 to 1984-85 (thousand dollars)

Discipline	1975-76	1976-77	1977-78	1978-79	1979-80
Dance	4,119	2,569	3,842	4,050	4,602
Music and opera	6,964	7,733	8,012	9,784	9,726
Theatre	7,235	7,818	9,464	8,950	9,535
Visual arts and photography	3,015	3,633	3,884	4,122	4,441
Film, video and audio and performance art	1,332	1,531	1,662	1,721	1,887
Writing, publishing and translation	5,208	5,845	6,585	7,563	7,083
Other disciplines <sup>1</sup>	1	—	95	219	283
Art bank purchases	756	755	693	758	610
Explorations program	1,232	1,294	1,386	1,461	1,407
Touring office grants	1,200	2,027	2,192	2,446	2,221
<b>Total</b>	<b>31,062</b>	<b>33,205</b>	<b>37,815</b>	<b>41,074</b>	<b>41,795</b>
	1980-81	1981-82	1982-83	1983-84	1984-85
Dance	5,166	6,319	7,752	8,223	8,861
Music and opera	10,386	11,490	12,986	13,969	14,599
Theatre	10,107	11,551	13,444	14,178	15,013
Visual arts and photography	4,627	5,783	6,495	7,218	8,044
Film, video and audio and performance art	1,949	2,493	3,018	3,189	3,690
Writing, publishing and translation	7,027	8,580	9,791	10,041	10,959
Other disciplines <sup>1</sup>	401	454	548	620	637
Art bank purchases	644	647	1,021	1,006	968
Explorations program	1,425	1,671	1,340	2,128	2,352
Touring office grants	1,961	2,569	3,154	3,333	3,543
<b>Total</b>	<b>43,693</b>	<b>51,557</b>	<b>59,549</b>	<b>63,905</b>	<b>68,666</b>

<sup>1</sup> Includes multidisciplinary work, performance art and arts administration.



### 15.3 Percentage distribution of musicians, by range of income from music, 1983

Income ranges	Full-time musicians %	Part-time musicians %	All musicians %
\$ 1 - 999	5	25	23
1,000 - 4,999	11	45	33
5,000 - 9,999	17	13	14
10,000 - 19,999	26	11	14
20,000 and over	41	6	16
Total	100	100	100
Median income from music (\$)	15,000	2,200	3,500

### 15.4 Percentage distribution of dancers, by range of income from dancing, 1984

Income ranges	Full-time dancers %	Part-time dancers %	All dancers %
\$ 1 - 9,999	8	77	63
10,000 - 14,999	30	12	16
15,000 - 19,999	31	5	10
20,000 and over	31	6	11
Total	100	100	100
Median income from dancing (\$)	16,000	3,600	6,700

### 15.5 Percentage distribution of actors, by range of income from acting, 1979

Income ranges	Full-time actors %	Part-time actors %	All actors %
\$ 1 - 4,999	10	42	34
5,000 - 9,999	9	32	27
10,000 - 14,999	23	12	15
15,000 - 19,999	14	7	9
20,000 and over	44	7	15
Total	100	100	100
Median income from acting (\$)¹	17,750	5,975	7,219

¹ Calculated from ranged data.

### 15.6 Number in active artists' groups, number of labour force participants, and number employed in labour force¹, by year of artist survey data (thousands)

artists' group	Survey data year	Number of active artists	Total Canadian labour force	Persons employed in Canadian labour force
visual artists	1977	3.5	10,500	9,651
freelance writers	1978	3.2	10,895	9,987
actors and directors	1979	4.5	11,231	10,395
performing musicians and composers	1982	32.5	11,958	10,644
dancers and choreographers	1984	0.9	12,399	11,000

Annual averages, Labour Force Survey.

## 15.7 Summary statistics on the performing arts, 1984

Item	Theatre	Music	Dance	Opera
Revenue by source (%)				
Ticket sales	43	30	25	39
Guarantees	6	11	13	5
Ancillary and other income	8	7	4	6
Grants <sup>1</sup>	43	52	58	50
Expenditures by type (%)				
Personnel	57	71	54	59
Publicity and promotion	10	8	9	6
Administration	6	7	5	9
Other production costs <sup>2</sup>	16	6	23	15
Other expenses <sup>3</sup>	11	8	9	11
Average revenue per organization (\$)	668,814	980,761	773,355	1,739,609
Average expenditure per organization (\$)	708,700	1,005,872	804,248	1,790,111
Average surplus (deficit) for season covered (\$)	(39,886)	(25,111)	(30,893)	(50,502)

<sup>1</sup> Includes all government grants and private contributions.<sup>2</sup> Includes royalties and fees paid for commissioned works and other production expenses such as sets, props, costumes and wardrobe.<sup>3</sup> Refers to space costs for office, storage, utilities and maintenance, and other expenses such as ticket printing and bar licence.

## 15.8 Number of responding heritage institutions, by type and region, 1983-84

Type of heritage institution	Region					Total
	Atlantic provinces	Quebec	Ontario	Prairie provinces	British Columbia <sup>1</sup>	
Museums						
Community	51	27	120	128	64	390
Art	11	17	55	22	15	120
History <sup>2</sup>	15	21	37	33	20	126
Other <sup>3</sup>	9	5	12	9	15	50
Total, museums	86	70	224	192	114	686
Nature parks	11	17	41	39	14	122
Historic sites <sup>4</sup>	67	37	93	56	22	275
Archives	26	104	74	27	22	253
Other <sup>5</sup>	5	26	19	21	14	85
Total, heritage institutions	195	254	451	335	186	1,421

<sup>1</sup> Includes Yukon and Northwest Territories.<sup>2</sup> Includes forts and military, maritime or marine, human history, archaeology, anthropology or ethnology, natural history or natural science, sports (or halls of fame), and transportation museums.<sup>3</sup> Includes multidisciplinary, science and technology and other museums.<sup>4</sup> Includes historic sites, buildings, parks or communities.<sup>5</sup> Includes the following: exhibition centres, planetariums, observatories, aquariums, zoos, botanical gardens, arboretums and conservatories.

## 15.9 National Library growth in titles and loans, 1976-77 to 1985-86

Fiscal year	Legal deposit titles	Relative change (1969-70 = 100)	Interlibrary loan requests <sup>1</sup>	Relative change (1969-70 = 100)
1976-77	15,061	168.4	125,970	157.9
1977-78	16,282 <sup>2</sup>	182.1	130,250	163.3
1978-79	17,852	199.7	133,665	167.6
1979-80	16,000	179.0	178,772	224.1
1980-81	17,905	200.3	173,257	217.2
1981-82	16,356	182.9	139,281	174.6
1982-83	17,420	194.8	157,710	197.7
1983-84	19,381	216.7	160,131	200.8
1984-85	20,586	230.2	138,788	174.0
1985-86	22,394	250.4	130,253	163.3

### 15.9 National Library growth in titles and loans, 1976-77 to 1985-86 (concluded)

Items listed in Canadiana

Calendar year	Number	Relative change (1969 = 100)	Calendar year	Number	Relative change (1969 = 100)
1976	25,137	184.9	1981	19,064	140.2
1977	28,512	209.7	1982	26,029	191.4
1978	28,729	211.3	1983	31,888	234.6
1979	31,287	230.2	1984	36,773	270.5
1980	25,775	189.6	1985	33,669	247.7

<sup>1</sup> Totals for certain years obtained by extrapolation.  
<sup>2</sup> Deposit extended to educational kits, Jan. 1, 1978.

### 15.10 Summary statistics of public libraries, 1984

Province or territory	Service points <sup>1</sup>	Bookstock <sup>2</sup> '000	Circulation '000	Total operating expenditure \$'000	Full-time professional librarians <sup>3</sup>
Newfoundland	107	818	1,849	4,119	15
Prince Edward Island	26	183	619	1,253	6
Nova Scotia	82	1,272	4,340	9,234	66
New Brunswick	61	1,198	3,000	5,486	32
Quebec	883	9,759	23,046	63,742	201
Ontario	1,012	24,476	65,427	194,508	1,018
Manitoba	89	1,869	5,687	12,173	47
Saskatchewan	321	2,483	7,955	19,060	103
Alberta	299	5,574	19,692	39,687	124
British Columbia	262	5,759	26,565	51,644	261
Yukon	7	175	121	609	2
Northwest Territories	21	107	112	519	3
Canada	3,170	53,673	158,412	402,034	1,878

<sup>1</sup> Includes permanent locations and mobile stations.

<sup>2</sup> Books and other materials catalogued as books; does not include periodicals and newspaper titles.

<sup>3</sup> Total of part-and full-time positions in full-time equivalents.

### 15.11 National Film Board productions, distribution summary, 1982-83 to 1985-86

Item	Canada				Abroad			
	1982-83	1983-84	1984-85	1985-86	1982-83	1983-84	1984-85	1985-86
Number of prints sold								
16mm prints	5,582	3,889	3,242	2,532	5,027	4,373	3,590	3,341
Film strips	11,013	11,925	10,048	11,151	146	73	209	237
Slide sets	6,615	4,135	5,742	4,310	78	59	35	67
8mm prints	1	—	—	—	465	1,151	316	576
Multimedia kits	464	241	873	1,223	—	2	4	9
Overhead projectors	34	21	9	3	—	—	—	—
Videocassettes	3,823	6,660	4,235	4,407	348	608	645	899
16mm prints placed in distribution through government agencies and departments	4,342	9,200	11,955	18,573	3,261	1,680	684	109
Number of prints loaned								
Bookings of 16mm prints								
- through NFB offices	523,131	529,881	498,860	451,375	—	—	—	—
- through affiliates	107,721	—	—	8,977	—	—	—	—
- through External Affairs and other agencies	—	—	—	—	144,119	105,942	115,241	66,484
Theatre bookings								
35mm and 16mm	1,147	875	445	617	—	—	—	—
Titles sold	—	—	—	—	163	91	155	220
Titles on contract	—	—	—	—	3,124	3,079	3,199	3,361
Television								
Telecasts (including travel)	8,705	10,361	6,738	9,637	—	—	—	—
Titles sold	—	—	—	—	4,470	1,628	3,963	1,159
Titles on contract	—	—	—	—	12,199	12,856	16,618	17,540
Non-commercial telecasts	—	—	—	—	48	9	21	—

## 15.12 Country of origin of new feature films distributed in Canada, 1981-83

Country	1981 <sup>1</sup>		1982		1983	
	Number	% of total	Number	% of total	Number	% of total
Canada	35	6.3	35	7.0	69	14.6
France	110	19.8	134	26.6	88	18.6
Germany <sup>1</sup>	23	4.2	28	5.6	9	1.9
United Kingdom	13	2.4	15	3.0	12	2.5
Hong Kong	54	9.8	—	—	—	—
India	38	6.9	7	1.4	4	0.8
Italy	70	12.7	52	10.3	27	5.7
United States	189	34.1	211	41.9	256	54.0
Other	21	3.8	21	4.2	9	1.9
Total	553	100.0	503	100.0	474	100.0

Note: 1984 data are not included because they are not comparable due to changes in questionnaire design.

<sup>1</sup> Includes both the German Democratic Republic and the Federal Republic of Germany.

## 15.13 Average prices, admissions and revenues of motion picture theatres, selected years

Year	Admission receipts (\$'000)		Amusement taxes (\$'000)		Number of paid admissions ('000)		Average admission price <sup>1</sup> (\$)
	Regular	Drive-ins	Regular	Drive-ins	Regular	Drive-ins	
1950	82,708	2,291	11,445	300	231,747	4,943	0.36
1955	86,374	5,755	10,264	602	184,968	10,688	0.47
1960	65,505	6,790	5,365	524	107,705	10,029	0.61
1965	75,372	9,790	5,082	505	89,135	10,780	0.85
1970	111,692	17,047	8,111	1,118	80,826	11,489	1.38
1975	182,139	29,283	13,406	1,973	84,161	12,843	2.16
1980	271,128	40,291	8,653	1,292	88,980	11,991	3.05
1981	279,219	40,876	14,416	1,886	84,855	11,200	3.29
1982	316,741	37,547	17,441	2,287	87,602	9,663	3.62
1983	298,411	30,230	16,496	1,743	78,139	7,658	3.82
1984	302,648	26,372	15,123	1,483	73,515	6,230	4.12

<sup>1</sup> Admission receipts excluding amusement taxes divided by number of paid admissions (regular theatres only).

## 15.14 Canadian households with communications services, 1981 and 1985

Communications service	1985		1981	
	Number of households '000	% of total households	Number '000	% change
Television	8,930 <sup>1</sup>	98.4	7,887	+ 13.2
Colour	8,298	91.4	6,685	+ 24.1
Black and white	3,518	38.7	3,655	-3.7
Radio (AM and FM)	8,961	98.7	7,934	+ 12.9
Telephone	8,915	98.2	7,870	+ 13.3
Cable television	5,666	62.4	4,553	+ 24.4
Total Canadian households	9,079	..	8,063	+ 12.6

Note: Colour and black and white televisions do not total to equal number of televisions because some households have one or more of both.

<sup>1</sup> Includes households with one or more (TV, radio or phone, according to category).



**15.15 Average hours per week of television viewing<sup>1</sup>, by age/sex group and province, fall 1984 and 1985**

Year, age and sex	Nfld.	PEI	NS	NB	Quebec		
					Language <sup>2</sup>		
					English	French	Total
1984							
Men							
18 and over	26.0	22.6	24.2	22.9	22.1	23.1	22.7
18 to 24	18.9	21.2	20.5	19.8	16.9	18.4	18.2
25 to 34	24.5	19.5	23.1	22.6	18.2	21.3	20.6
35 to 49	23.9	23.7	22.7	20.4	19.6	21.5	21.0
50 to 59	26.5	22.9	24.9	23.5	22.2	26.4	25.5
60 and over	41.8	26.0	30.6	29.5	32.7	32.4	32.0
Women							
18 and over	31.9	24.9	29.0	27.1	25.2	28.1	27.4
18 to 24	27.9	20.8	25.4	21.1	18.7	22.8	22.3
25 to 34	35.5	25.4	29.7	28.5	21.7	26.1	25.3
35 to 49	29.5	24.4	27.0	25.3	24.5	26.1	25.6
50 to 59	30.0	24.8	32.8	25.5	22.3	31.1	29.6
60 and over	34.8	27.2	30.6	32.1	33.4	36.3	35.2
Teens							
12 to 17	20.5	20.8	23.6	20.8	19.6	20.9	20.7
Children							
2 to 11	26.6	20.6	20.5	22.0	18.2	20.3	19.8
Total population	27.5	23.0	25.4	24.1	22.7	24.5	24.0
1985							
Men							
18 and over	25.9	24.4	23.8	24.4	22.3	23.2	23.0
18 to 24	24.4	25.1	18.2	19.8	14.5	18.4	17.6
25 to 34	25.1	21.8	21.7	21.8	21.2	20.7	20.7
35 to 49	24.4	21.2	23.1	22.9	18.3	21.3	20.9
50 to 59	22.7	23.0	22.4	26.0	24.1	25.4	25.1
60 and over	32.9	31.2	33.4	32.6	33.0	35.7	34.4
Women							
18 and over	30.0	28.7	28.6	30.4	27.1	29.1	28.8
18 to 24	27.9	26.3	26.8	27.8	22.3	22.4	22.0
25 to 34	31.3	24.7	26.9	31.0	26.1	27.2	26.8
35 to 49	29.9	26.8	26.1	27.0	22.5	27.6	26.7
50 to 59	34.9	29.5	31.8	31.5	28.8	33.6	32.8
60 and over	27.7	34.9	32.9	35.3	33.3	37.2	36.3
Teens							
12 to 17	27.1	21.0	23.8	21.7	15.4	21.7	21.1
Children							
2 to 11	27.0	21.9	20.5	22.3	19.8	22.9	22.5
Total population	27.7	25.3	25.2	26.1	23.4	25.4	25.1
	Ont.	Man.	Sask.	Alta.	BC	Canada	
1984							
Men							
18 and over	22.3	22.4	22.7	22.6	24.3		22.9
18 to 24	19.5	16.6	17.8	19.7	19.9		19.0
25 to 34	20.9	19.8	20.1	21.3	20.9		21.0
35 to 49	19.8	20.2	18.5	20.5	21.5		20.6
50 to 59	23.0	23.6	23.9	24.8	26.1		24.4
60 and over	30.4	31.9	32.5	31.2	34.9		31.8
Women							
18 and over	26.3	26.6	26.3	25.7	27.3		26.9
18 to 24	22.5	21.3	21.2	22.7	24.0		22.7
25 to 34	24.5	26.2	24.7	24.6	25.7		25.5
35 to 49	23.3	23.0	22.1	23.5	23.4		24.2
50 to 59	27.4	25.5	28.7	28.9	30.2		28.6
60 and over	33.7	34.6	33.8	31.9	33.4		33.8
Teens							
12 to 17	19.5	21.8	19.2	20.0	17.7		20.0
Children							
2 to 11	19.3	21.6	18.9	18.2	16.6		19.5
Total population	23.3	23.9	23.1	22.8	23.9		23.7

### 15.15 Average hours per week of television viewing<sup>1</sup>, by age/sex group and province, fall 1984 and 1985 (concluded)

Year, age and sex	Ont.	Man.	Sask.	Alta.	BC	Canada
1985						
Men						
18 and over	21.4	21.2	20.4	21.3	23.3	22.5
18 to 24	17.0	14.2	15.3	18.1	17.9	17.5
25 to 34	19.5	18.9	17.3	19.2	19.8	20.0
35 to 49	18.4	19.1	18.2	20.0	21.0	20.0
50 to 59	22.4	23.6	20.5	24.4	25.4	23.7
60 and over	31.4	31.4	30.8	30.1	33.2	32.3
Women						
18 and over	25.6	26.9	26.5	24.2	24.9	26.7
18 to 24	20.8	22.0	21.9	20.7	20.5	21.8
25 to 34	23.7	25.0	23.2	22.9	22.4	24.8
35 to 49	21.7	24.3	22.6	21.7	21.1	23.6
50 to 59	28.3	29.5	27.8	27.4	28.2	29.8
60 and over	33.9	33.0	35.4	32.1	32.4	34.1
Teens 12 to 17	18.2	18.9	17.7	20.1	18.3	19.8
Children 2 to 11	20.0	20.1	18.8	18.0	17.9	20.4
Total population	22.6	23.1	22.2	21.7	22.8	23.5

<sup>1</sup> Only at-home viewing is included.

<sup>2</sup> For Quebec, the language classification is based on the language spoken at home. The total column includes those respondents who did not reply to this question or who indicated a language other than English or French.

### 15.16 Freelance payments, CBC radio and television, fiscal years ended March 31, 1983-84 to 1985-86 (thousand dollars)

Year and item	Atlantic provinces	Quebec	Ontario	Prairie provinces	British Columbia	Northern service	Radio-Canada International	Total cost
1983-84								
Musicians' fees	1,037	4,658	5,607	1,534	1,160	6	74	14,076
Union actors, writers and performers	2,891	17,014	15,284	2,973	2,618	56	151	40,987
Other actors, writers and performers	2,080	1,624	18,585	3,908	2,313	232	147	28,889
Talent payroll	6,008	23,296	39,476	8,415	6,091	294	372	83,952
Royalty payments to authors', composers' and musicians' associations	334	923	626	448	260	—	—	2,591
Other production fees and performing rights (special events and news)	755	16,993	17,617	876	—	128	284	36,653
Total	7,097	41,212	57,719	9,739	6,351	422	656	123,196
1984-85								
Musicians' fees	1,049	4,916	5,989	1,529	1,295	8	40	14,826
Union actors, writers and performers	3,162	19,967	16,668	3,228	2,940	88	162	46,215
Other actors, writers and performers	2,133	1,896	22,374	4,753	2,690	375	185	34,406
Talent payroll	6,344	26,779	45,031	9,510	6,925	471	387	95,447
Royalty payments to authors', composers' and musicians' associations	339	959	688	496	268	—	—	2,750
Other production fees and performing rights (special events and news)	545	18,793	22,443	664	—	131	250	42,826
Total	7,228	46,531	68,162	10,670	7,193	602	637	141,023

### 15.16 Freelance payments, CBC radio and television, fiscal years ended March 31, 1983-84 to 1985-86 (thousand dollars) (concluded)

Year and item	Atlantic provinces	Quebec	Ontario	Prairie provinces	British Columbia	Northern service	Radio-Canada International	Total cost
1985-86								
Musicians' fees	685	5,484	5,176	1,789	1,224	14	26	14,398
Union actors, writers and performers	2,994	21,162	16,751	3,503	3,400	213	177	48,200
Other actors, writers and performers	1,969	1,643	25,568	5,319	2,748	477	151	37,875
Talent payroll	5,648	28,289	47,495	10,611	7,372	704	354	100,473
Royalty payments to authors', composers' and musicians' associations	384	1,015	719	502	291	—	—	2,911
Other production fees and performing rights (special events and news)	1,151	24,375	26,874	766	601	—	160	53,927
Total	7,183	53,679	75,088	11,879	8,264	704	514	157,311

### 15.17 New releases, by Canadian-content<sup>1</sup> and musical category, 1982-84<sup>2</sup>

Year and musical category	Canadian-content recordings		Non-Canadian-content recordings	
	7— singles	12— albums	7— singles	12— albums
1982				
Adult-oriented popular music	164	106	295	476
Top 40 or rock-oriented music	205	124	970	997
Classical	1	51	15	451
Jazz	8	19	3	139
Country and folk	115	45	128	153
Children's	3	20	1	24
Other	34	58	28	170
Total	530	423	1,440	2,410
1983				
Adult-oriented popular music	132	121	218	319
Top 40 or rock-oriented music	268	146	916	946
Classical	—	47	3	382
Jazz	2	13	12	366
Country and folk	82	44	198	184
Children's	32	41	2	18
Other	3	65	71	182
Total	519	477	1,420	2,397
1984				
Adult-oriented popular music	154	83	133	233
Top 40 or rock-oriented music	205	157	773	1,267
Classical	2	79	4	381
Jazz	1	22	49	180
Country and folk	104	65	179	198
Children's	46	35	—	13
Other	16	47	8	231
Total	528	488	1,146	2,503

<sup>1</sup> "Canadian content" refers to criteria specified by the CRTC. A record must have some combination of any two of the following characteristics: the record was produced in Canada, the lyrics were written by a Canadian, the music was composed by a Canadian, the featured performer is a Canadian.

<sup>2</sup> The number of firms declaring releases, 1982-84: 1982 = 104, 1983 = 88 and 1984 = 114.

**15.18 Participation in recreational activities<sup>1</sup>**

Activity	Persons 10 years and over <sup>2</sup>		Activity	Persons 10 years and over <sup>2</sup>	
	'000	%		'000	%
Walking	11,861	57	Popular dance	2,610	13
Bicycling	7,838	38	Baseball	2,285	11
Swimming (pool)	7,498	36	Downhill skiing	2,244	11
Jogging, running	6,456	31	Ice hockey	1,958	9
Gardening	6,183	30	Bowling	1,717	8
Home exercises	5,832	28	Exercise classes	1,641	8
Ice skating	4,330	21	Racquetball	1,227	6
Cross-country skiing	3,631	18	Curling	999	5
Tennis	3,050	15			
Golf	2,623	13	Total participants	20,718	100

<sup>1</sup> *Fitness and Lifestyle in Canada*, 1981 Canada Fitness Survey.<sup>2</sup> Participating at least once in 12 months preceding the survey.**15.19 Selected activities of Canadian travellers, 1984**

Activity	Person-trips <sup>1</sup> '000	Activity	Person-trips <sup>1</sup> '000
Visit friends or relatives	49,520	Other water sports	5,490
Shopping	30,454	Hunting or fishing	6,485
Sightseeing	15,636	Cross-country skiing	1,306
Winter carnivals	256	Downhill skiing	2,123
Local festivals or events	4,799	Other sports or outdoor activities	14,552
Attend cultural events	3,515	Other	3,586
Nightlife, recreational activities	13,029	No activities reported	19,577
Visit zoo, historic site, natural display	5,630		
Visit national, provincial or regional park	6,174	Total with one or more activities	77,214
Attend sports events	5,872		
Swimming	10,997	Total	96,791

<sup>1</sup> Travel by residents of Canada on trips of 80 km or more with destinations in Canada.**Sources**

- 15.1, 15.3 - 15.8, 15.10, 15.12 - 15.15, 15.17, 15.19 Education, Culture and Tourism Division, Statistics Canada.  
 15.2 Information Services, Department of Communications.  
 15.9 Library Documentation Centre, National Library of Canada.  
 15.11 Communications Branch, National Film Board of Canada.  
 15.16 Public Affairs, Canadian Broadcasting Corporation.  
 15.18 Promotion and Communications Section, Fitness and Amateur Sport.



CHAPTER 16

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# MANUFACTURING

## CHAPTER 16

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# MANUFACTURING

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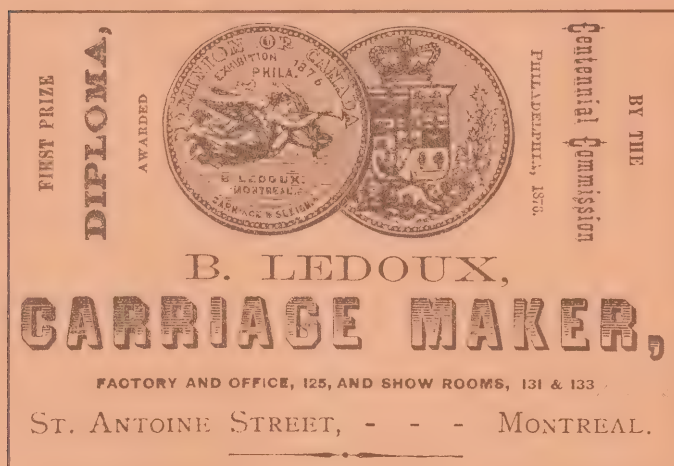
THEN



"The iron and its products group was hit hardest by the depression. In gross value of products, the output of these industries was reduced by 71.3 p.c. in 1933 compared with 1929. In salaries and wages paid the reduction was 62.8 p.c. and in employees 46.4 p.c." (1937)

"With the increase in urban population, as well as the improvement in transportation, which increasingly enables rural communities to purchase factory-made bread, the bread industry made rapid strides during the past decade. During this period there was an increase of 37 p.c. in the capital invested and 56 p.c. in the number of employees." (1937)

"The leading manufacturing industries, principally in Ontario and Quebec, are works for making all kinds of agricultural implements in iron and wood, waggons, carriages, and railroad rolling stock (including locomotives), cotton factories, woollen factories, saw-mills, tanneries, machinery, iron and hardware works, flax works, furniture, paper, soap, woodenware, boot and shoe, cloth and linen, door, sash, stave, tobacco, meat and food preserving, and cheese factories. Sugar refining is extensively carried on in Halifax and Montreal." (1886)



NOW

In 1984, the strong growth in overall activity for the manufacturing sector was mainly driven by the recovery in the auto industry. The transportation equipment group's shipments (of which road motor vehicles and their parts accounted for 87.7%) posted a remarkable 33.2% increase to \$37.9 billion.

By province, the best performance in overall manufactured shipments in 1984, was in Nova

Scotia with an increase of 18.1% over 1983. It was closely followed by Ontario with 17.2% and New Brunswick with 16.8%.

By March 31, 1986, the patent office had issued nearly 1.2 million patents. Patents remain in force for 17 years from the date of issue.



## CHAPTER 16 MANUFACTURING

### 16.1 Statistical highlights

The recovery of the manufacturing sector from the 1982 recession continued in 1984 with a strong growth in overall activity over the levels recorded for 1983. The aggregate value of all shipments of goods of own manufacture reported by manufacturing establishments in Canada for the year 1984 came to \$230.1 billion, up 13.2% from \$203.3 billion in 1983.

#### 16.1.1 Major industry groups

Analyzing this strong growth by its component industry groups, it becomes evident that the recovery in the auto industry was the main driving force behind this strength. The transportation equipment group's shipments (of which road motor vehicles and their parts accounted for 87.7%) posted a remarkable 33.2% increase to \$37.9 billion in 1984. The second largest percentage growth occurred in the primary metal industries group where manufactured shipments rose 20.2% to \$16.4 billion. Since the primary steel industry, which is a major supplier to the auto industry, accounts for nearly half of this major group's shipments, it is evident that the primary metal industry group must also have benefited significantly from the growth in the auto industry. The third best percentage gain was recorded by the machinery industries group with an increase of 18.6% to \$6.9 billion. Other major industry groups recording increases greater than 15% were electrical and electronic products, up 17.5% to \$11.6 billion; rubber products, up 17.1% to \$2.5 billion; paper and allied products, up 16.4% to \$17.5 billion; and plastic products which gained 15.4% to \$3.5 billion in manufactured goods shipped. By contrast the refined petroleum and coal products group recorded the weakest performance with an increase of only 0.1% to \$23.3 billion, followed closely by primary textiles which edged up 0.5% to \$2.7 billion.

#### 16.1.2 Provincial highlights

Among the strongest major industry groups back to the provinces, the strong performance

of the transportation equipment group may be virtually all traced to a 36.1% rise in Ontario which accounts for 83.1% of the national total in this group. Quebec, with 11.4% of shipments, gained 10.5%. The strength in the primary metals group may similarly be largely attributed to a 22.0% rise in Ontario where 57.5% of the shipments took place. Quebec with 28.5% of shipments, recorded a 14.0% increase while Alberta recorded the largest percentage gain with a rise of 41.5% on 4.8% of Canadian total volume. The improvement of 18.6% in the machinery group was similarly attributable mainly to a 19.7% rise in Ontario which reported 62.4% of the national total shipments. Quebec, with 14.8% of shipments, rose 14.7% while Alberta, the third largest province in this group, with 7.9% of shipments, recorded a 17.0% increase.

Looking at overall manufactured shipments by province, the best performance in 1984 was in Nova Scotia with an increase of 18.1% over 1983, closely followed by Ontario with 17.2% and New Brunswick with 16.8%. The only other province to post an increase greater than 10% was Alberta which had a 10.4% gain over the previous year. The only province to record a decrease was Newfoundland which eased back 0.4%.

In terms of the proportion of the national total shipments accounted for by each province, Ontario increased its share to 52.9% from 51.1% in 1983 while Quebec's share dropped slightly to 24.8% from 25.6% the year before. British Columbia continued to hold down third spot with 7.8%, versus 8.4% in 1983, while fourth place Alberta eased to 6.6% of the Canada total from 6.8% the previous year. Table 16.1 provides additional analytical detail.

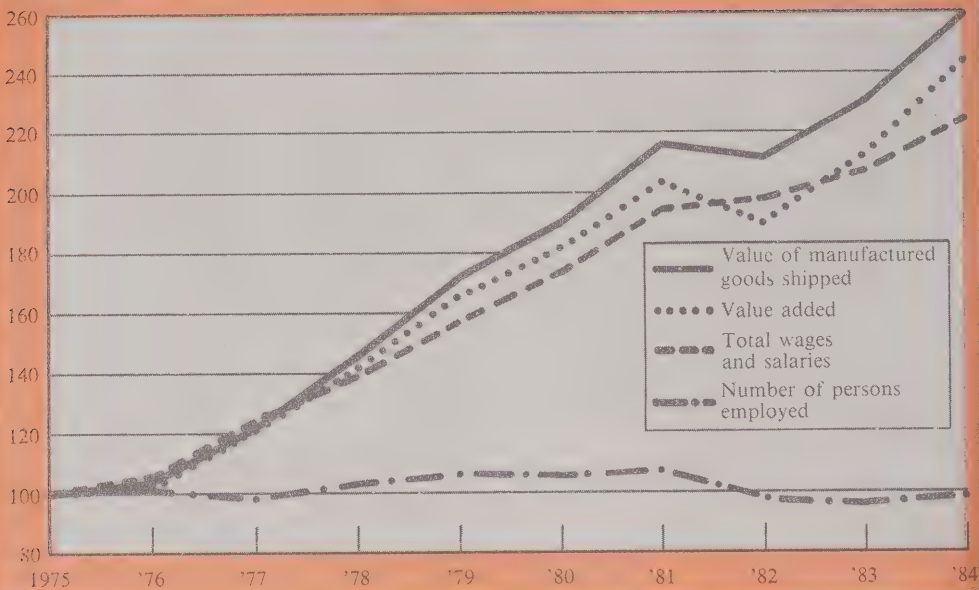
### 16.2 Federal services to business

The Department of Regional Industrial Expansion (DRIE) provides a wide range of services to the business community to encourage and support trade and industrial development

Chart 16.1

**Manufacturing trends, 1975-84**

Index value (1975 = 100)



throughout Canada. These services contribute to increased sales in the domestic market, the expansion of Canadian exports, enhanced productivity and improved international competitiveness.

The department disseminates economic and commercial information through sectoral and regional analyses, facilitates the transfer of new technologies throughout Canadian industry, identifies and matches Canadian sources of supply to domestic and international market opportunities and promotes new production and investment in Canada.

Trade development activities are pursued in close co-operation with the Department of External Affairs.

The department has regional offices and sub-offices in each province and territory.

### 16.2.1 Industrial and regional development

The Industrial and Regional Development Program (IRDP) provides direct financial assistance, in the form of contributions and repayable contributions, to manufacturers and processors across Canada for the development of new products or processes that will increase productivity and international competitiveness; for the

establishment of new production facilities in regions with relatively high economic disparity; for modernization and expansion, including first-time installation of micro-electronic devices; for marketing research and strategy studies; and for investments made to adjust to changing competitive conditions or to produce new, more viable or more competitive products or services.

The amount of assistance that firms may be eligible for varies according to the economic development needs of the region.

DRIE administers the program through its regional offices, paying particular attention to the needs of small and medium-sized businesses.

### 16.2.2 Small businesses loans program

The Small Businesses Loans Act (SBLA) is designed to help new and existing small business enterprises obtain intermediate term loans directly from chartered banks, Alberta Treasury branches and other designated lenders to help finance specified fixed asset needs. A small business enterprise is one with an estimated gross business not exceeding \$2 million during the fiscal year in which the Business Improvement Loan (BIL) application is made. A BIL can be

made to a small business operating for gain or profit where the principal business carried on comes within any of the following classes: manufacturing, wholesale trade, retail trade, service business, construction, transportation and/or communications.

Business Improvement Loans are available for the purchase of land (with buildings thereon) for the operation of a small business enterprise; the renovation, improvement, modernization, extension, construction and/or purchase of premises; the purchase, installation, renovation, improvement and/or modernization of equipment of a kind usually affixed to real or immovable property; and the purchase, installation, renovation, improvement and/or modernization of equipment of a kind not usually affixed to real or immovable property.

The maximum amount a borrower may have outstanding at any one time may not exceed \$100,000. BILs can be used to finance up to 90% of land and premises costs and up to 80% of equipment costs. The maximum rate of interest cannot exceed 1% more than chartered bank prime rates plus a one-time front-end fee of 1%. The repayment period shall not exceed 10 years, with installments at least annually. BILs must be secured, at least by the asset being financed. Applications for BILs should be made by small business enterprises directly to chartered banks, Alberta Treasury branches or other designated lenders.

### 16.2.3 Machinery program

This program is an industrial development incentive with a twofold objective. It encourages machinery manufacturers to derive optimum benefit from the tariff on machinery and enables machinery users to acquire advanced production equipment at the lowest possible cost.

The program assists Canadian machinery manufacturers by ensuring tariff protection on the machinery and equipment they produce as soon as they are able to supply. Direct contacts between machinery producers and users encourage the purchase of Canadian-made machinery instead of imported equipment. Machinery users benefit from remissions of duty under the program in terms of reduced cost for the purchase of advanced production equipment not obtainable in Canada.

### 16.2.4 Defence industry productivity

The Defence Industry Productivity Program (DIPP) offers financial assistance to Canadian companies to develop and manufacture defence-related products. The program assists a wide

range of industrial sectors, including aerospace and electronics.

Contributions are provided toward the eligible costs of the following types of projects carried out in Canada: research and development, source establishment, capital assistance and market feasibility studies.

## 16.3 Federal protection and standards

### 16.3.1 Patents and trade marks

The intellectual property directorate, a part of the corporate affairs bureau of Consumer and Corporate Affairs Canada, administers legislation covering patents, trade marks, copyright and industrial design.

**Patents.** Patents for inventions are issued under the provisions of the Patent Act (RSC 1970, c.P-4; 1984 c.1) and the patent rules. Applications for patents for inventions and requests for information about such patents should be addressed to: Commissioner of Patents, Ottawa-Hull K1A 0E1.

By March 31, 1986, the patent office had issued nearly 1.2 million patents which are classified by subject matter so that they can be searched easily.

Patents remain in force for 17 years from the date of issue. Paper copies of Canadian patents issued before 1948 may be purchased from the Commissioner of Patents. Patents issued after January 1, 1948 are available from Micromedia Ltd., Hull, Que. J8X 3X2. Microfiche copies of all Canadian patents are available from Micromedia Ltd. The official journal of the patent office, the *Patent office record*, is published weekly and contains information about all patents issued during that week. It is available from the Canadian Government Publishing Centre, Supply and Services Canada, Ottawa K1A 0S9.

The patent office has a public search room holding many journals, textbooks and reports, as well as the patents of other countries including the United States, Great Britain, France, Japan and the Federal Republic of Germany.

**Trade marks.** Trade marks are registered under the provisions of the Trade Marks Act and the trade mark rules. Applications for registration of a trade mark should be sent to the Registrar of Trade Marks, Ottawa-Hull K1A 0E1.

Applications are examined for compliance with the requirements of the Trade Marks Act and rules and, if found acceptable, are advertised in the *Trade marks journal*. There is a 30-day period after advertisement in which



anyone can oppose the registration of a trade mark. A trade mark registration lasts for 15 years and can be renewed for further periods of 15 years.

The *Trade marks journal*, published weekly, is available from the Canadian Government Publishing Centre, Supply and Services Canada, Ottawa K1A 0S9. The Trade Marks Office has a public search room which contains details on all registered trade marks.

**Copyright.** Copyright is registered under the provisions of the Copyright Act and rules. Applications for registration and requests for information should be sent to: Copyright and Industrial Design Branch, Consumer and Corporate Affairs Canada, Ottawa-Hull K1A 0C9.

Copyright generally lasts for the life of the creator plus 50 additional years.

### 16.3.2 Industrial design and timber marks

Industrial designs are registered under provisions of the Industrial Design Act and rules. An industrial design is any original shape, pattern or ornamentation applied to an article made by an industrial process. An industrial design registration gives protection of an initial period of five years and can be renewed for a further period of up to five years. The protection given by a registered industrial design prevents anyone other than the owner from using that design in Canada during the life of the registration. There is a public search room in Hull, Que. where all previously registered designs can be searched.

Applications for registration or requests for information should be sent to: Copyright and Industrial Design Branch, Bureau of Corporate Affairs, Consumer and Corporate Affairs Canada, Ottawa-Hull K1A 0C9.

Individuals or companies floating timber on the inland water of Ontario, Quebec and New Brunswick must, under the Timber Marking Act, select a mark or marks for the timber and apply for the registration of such marks within one month of engaging in this business.

### 16.3.3 Standards Council of Canada

This Crown corporation, with headquarters in Ottawa, is the national co-ordinating body responsible for promoting voluntary standardization in Canada. The Standards Council promotes the development and use of standards as a means of advancing the economy, benefiting the health, safety and welfare of the public, facilitating domestic and international trade and furthering international co-operation in the field of standards.

To carry out its mandate the council created the National Standards System, a federation of organizations accredited by the council to answer Canada's standards requirements in the fields of standards writing, certification and testing.

The objects of the council are to foster and promote voluntary standardization relating to the construction, manufacture, production, quality performance and safety of buildings, structures, manufactured articles and products and other goods.

Both Canadian and overseas standards users are served by the council's standards information service which answers inquiries pertaining to national, foreign and international standards, certification systems and technical regulations.

In the international field, the council appoints members and directs activities of the Canadian national committee of the International Electro-Technical Commission (IEC) and is the member body for Canada in the International Organization for Standardization (ISO). The council is responsible for Canada's participation in the work of these international standards-writing bodies, co-ordinating some 2,500 volunteers. It is also the Canadian sales outlet for the international standards of IEC and ISO, and foreign national standards.

### 16.3.4 Trade standards and regulations

In its consumer program, Consumer and Corporate Affairs Canada is responsible for administration of broad legislation affecting the marketplace. Policies and programming are determined by the consumer affairs bureau of the department.

**Hazardous products.** The product safety branch administers the Hazardous Products Act. The act makes specific mention of products designed for household, garden or personal use, for use in sports or recreational activities or for use by children. It also mentions without reference to end use, poisonous, toxic, flammable, explosive and corrosive products. The Minister is empowered to establish mandatory standards; these include a ban on the use of small parts in infants' toys, flammability standards for textiles and a requirement for warning labels on dangerous household chemicals. Regulations governing playpens, rattles and cribs are designed to protect children, and other rigid specifications cover such products as hockey helmets, glazed ceramics and cellulose insulation.

**General commodity field.** The Consumer Packaging and Labelling Act and regulations



administered by the consumer products branch are designed to give uniformity to packaging and labelling practices in Canada, reduce the possibilities of fraud and deception in packaging and labelling, and control the undue proliferation of package sizes. The legislation applies to most pre-packaged consumer products and came into effect in September 1975 for non-food items and in March 1976 for foods.

Regulations under the Textile Labelling Act, in effect since December 1972, require labels on all consumer textile articles. The label must include fibre names and percentages and the identification of the dealer. The regulations also deal with misrepresentation in both labelling and advertising. The textile care labelling system of coloured symbols recommending proper care for textile products is a voluntary program. The Canada Standard size system for children's garments, developed by the Canadian General Standards Board in conjunction with Consumer and Corporate Affairs Canada, is administered under the National Trade Mark and True Labelling Act. This system is also voluntary, although dealers must conform to the standard size before using the Canada Standard size logo on a product.

Control of marking articles of precious metal is maintained under the Precious Metals Marking Act. The regulations came into force in July 1973.

## 16.4 Provincial assistance to manufacturing

**Newfoundland.** The manufacturing sector of Newfoundland's economy accounts for 8% of the gross domestic product at factor cost. The total value of manufacturing shipments totals more than \$1 billion annually. Export manufacturing activities are concentrated in the areas of fish processing, newsprint and non-metallic mineral production.

Traditionally the manufacturing industry has been directed toward the primary processing of raw materials for export, with almost one half of these exports originating in the seafood industries. Secondary and tertiary industrial efforts have made a rapid and significant impact on the province's manufacturing sector and cover a wide range of goods and services.

The approaching development phase of offshore oil and gas offers significant manufacturing investment opportunities including steel fabrication facilities; marine technology and hardware; and telecommunications and marine navigation technology.

The province is also interested in attracting energy-intensive processing and manufacturing enterprises and can offer competitive power to industrial clients. Manufacturing is supported by a number of industrial parks and conveniently located incubator malls which can facilitate small to medium-sized manufacturing and high technology business.

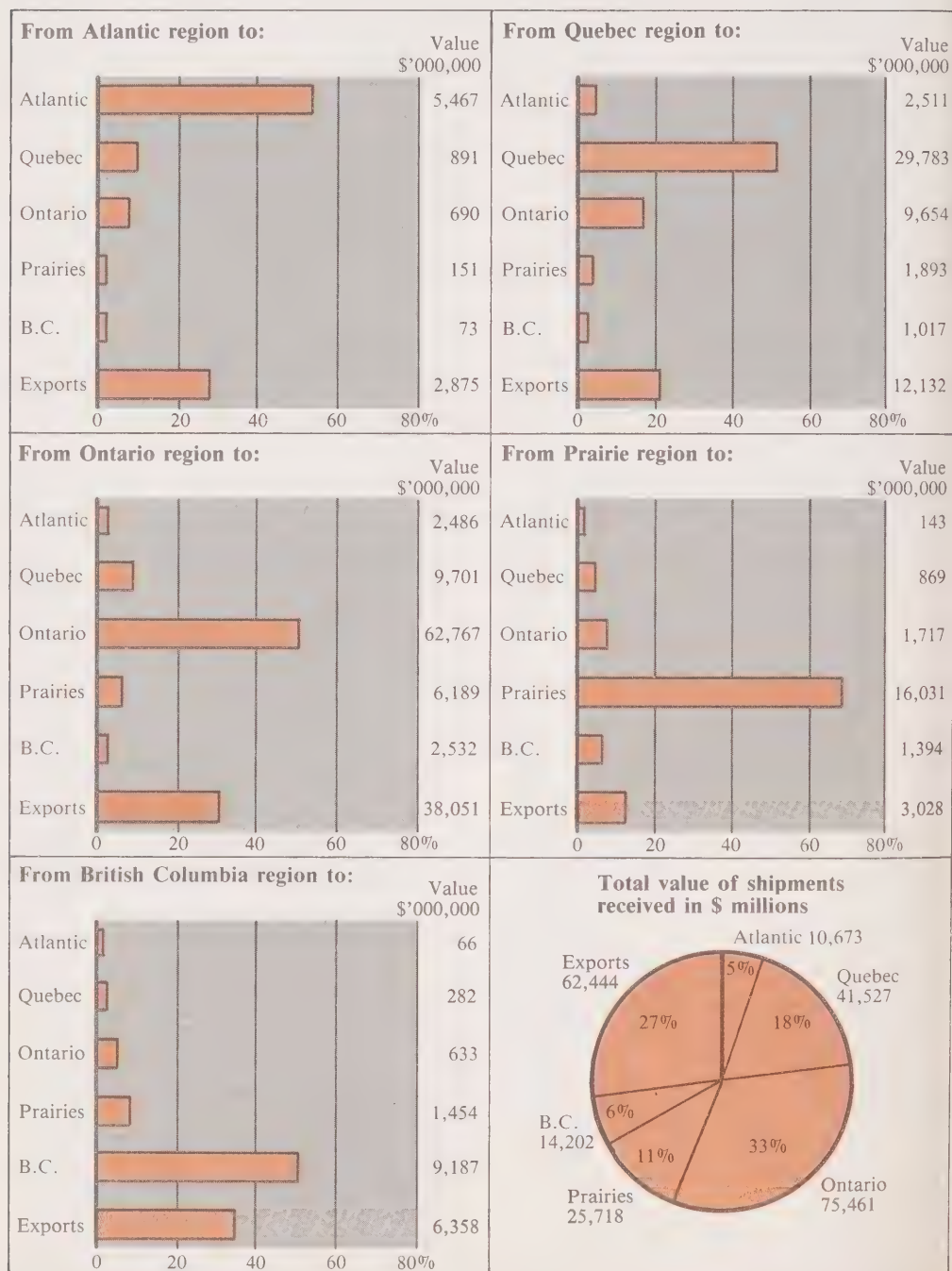
A number of development programs are available which offer assistance and encourage establishment and expansion of manufacturing, processing and servicing activities.

**Prince Edward Island.** The primary objective of the Prince Edward Island Development Agency is to identify and develop economic opportunities through programs that stimulate economic development and long-term employment. Through the development division various assistance programs are offered to manufacturers, processors and related service industries. The investment incentive program provides nonrepayable cash grants of up to 50% of the investment in fixed assets used in projects. For projects partly financed through a venture corporation, the agency has available a venture capital program, whereby the investor is assisted through a loan for up to 10 years. Through the industrial mall program the agency rents industrial units ranging in size from approximately 37 m<sup>2</sup> to 3 066 m<sup>2</sup> in the industrial parks in the Charlottetown and Summerside areas. Outside of these areas the rental incentive program provides annual rental subsidies to manufacturing and processing industries. Serviced land is also for sale for constructing industrial facilities in the West Royalty Industrial Park or Parkdale, both suburbs of Charlottetown, or in the Summerside Area Industrial Park. The agency has recently approved a number of new industrial assistance programs.

The marketing division encourages development and expansion of markets for the Island's natural and manufactured products. In doing so it provides both technical personnel and financial assistance to producers, processors and manufacturers with an interest in the development of new or the marketing of existing products. It also co-ordinates the planning and implementation of marketing projects sponsored by the province.

**Nova Scotia.** Industrial Estates Ltd. (IEL) is a Nova Scotia Crown corporation created to assist the establishment and expansion of manufacturing industries. IEL can finance, at competitive interest rates, up to 100% of the cost of land and buildings and up to 60% of the installed

Chart 16.2

**Destination of manufacturing shipments by region, by value and per cent, 1984**

cost of production machinery of a new enterprise or a plant expansion. Financing land and buildings over a 20-year period and machinery over 10 years is customary. IEL can also design an incentives program to suit the needs of a project after evaluating the project's economic impact on Nova Scotia and Canada. IEL owns and operates the provincially owned industrial parks in Nova Scotia.

An industrial malls program encourages the development of new, small businesses and industries by providing rental assistance in their first years as well as advisory and some office services.

The Nova Scotia Research Foundation Corporation conducts research into ocean technology, chemistry, biology and geophysics and offers advisory, technical and scientific services to industry and government.

The NS department of development has other programs to help business and industry. A trade expansion program (TEP) offers grants to assist NS firms to attend trade fairs and exhibits, conduct market investigations, attend market education courses, and host incoming buyers. A product development program provides grants to NS manufacturers. A rural industry program offers capital grants to NS businesses to establish, expand or modernize their facilities outside the Halifax-Dartmouth city limits. A consulting assistance program assists small businesses to acquire expert help in solving non-recurring problems. The department of development also offers business development programs to disabled entrepreneurs and to entrepreneurs in some other minority groups.

Municipal tax assistance is available for limited periods for new or expanding firms, on approval by the NS departments of municipal affairs and development.

The province co-operates closely with the Cape Breton Development Corp., a federal Crown corporation, and contributes financially to some of its sponsored industry-development projects.

The Nova Scotia resources development board, affiliated with the Nova Scotia department of development, provides term financing on the security of fixed assets for projects defined under the Industrial Loan Act, and the Industrial Development Act. Such projects include tourism facilities, primary agriculture processing, fish plants, and saw and planing mills.

**New Brunswick.** The commerce and technology department is responsible for developing manufacturing and processing. Its aims are to continue to build a strong industrial base through the

development of local entrepreneurs and local firms in all areas; to diversify the industrial base through the promotion of new investment from outside the province and the introduction of new technology and products; and to provide the necessary infrastructure required for economic development.

A financial programs and administration branch makes recommendations on applications for funds to industries to locate in the province or to expand, and administers the regional economic development program. An industrial development branch is responsible for attracting new industries to New Brunswick; the provision of management, technical and marketing services to industry; the development of new or expanded markets; the development of the maximum local processing of provincial resources; and capital expenditures in provincial industrial parks. A science and technology secretariat is responsible for provincial co-ordination, stimulation and policy establishment in science and technology as well as departmental policy, planning and federal-provincial activities.

Three agencies report to the commerce and technology minister. A New Brunswick industrial development board recommends financial assistance to manufacturers or processors, normally through a direct loan or loan guarantee. Terms and conditions are subject to individual negotiation but specifically require the applicant to provide reasonable equity and security. Provincial Holdings Ltd., a Crown corporation, administers the province's equity position in various companies. This agency is prepared to take an equity position in manufacturing industries wishing to locate in New Brunswick. A Research and Productivity Council (RPC) provides technical support services for New Brunswick industry. RPC carries out research and problem-solving on a cost-recovery basis for clients in Canada and abroad. An industrial engineering service and free technical information are made available to NB (and PEI) companies by RPC in co-operation with the National Research Council.

**Quebec.** In Quebec, the main objective of government assistance is to increase investment in the province. This task has been entrusted mainly to the Société de développement industriel (SDI). In 1987, the government of Quebec adopted a new business-assistance strategy, simplifying the structure of the programs. Most SDI activities are now part of four programs under which assistance is provided for investment, research and innovation activities, exports, and



tourism development. The forms this assistance takes are in line with the General Agreement on Tariffs and Trade (GATT) standards and criteria or correspond to those foreseeable within the framework of a possible free-trade agreement between Canada and the United States. The government of Quebec adopted a formula for risk-sharing with businesses carrying out new projects; assistance is given in the form of unsecured loans for a maximum of 10 years, with the possibility of a set interest rate for part of the term. The company enjoys a moratorium on repayment of capital and interest for a maximum of three years, with the interest capitalized over that period. In addition, the company is offered two repayment plans, one of which relates more specifically to the profitability of the project. In general, companies must submit projects whose size is significant in the context of their overall activities and which are aimed at a strongly growing market.

The investment assistance program is aimed more specifically at manufacturing and recycling companies, companies providing computer and software services, and research laboratories. Under this program, financial assistance is available to businesses that plan to carry out projects involving the manufacture or provision of goods and services which have good market potential and using the most recent production technology.

The program for funding manufacturing companies provides, on a more limited basis, financial assistance to companies that cannot obtain appropriate financing from financial institutions.

The Quebec government also takes special action to help innovative companies oriented toward high-technology markets through its new program of assistance for research and innovation activities. This program is aimed at companies which plan to carry out projects, in Quebec, that focus directly on profitable commercial applications and would have significant economic and technological impact. Companies wishing to increase their activities outside Quebec can obtain assistance through the export assistance program.

In addition to the action taken by the SDI with respect to businesses, a number of more general measures and services have been established to promote the development of a climate favourable to business growth. Through its fiscal policy, the Quebec government helps ensure that large amounts of capital are available to both public and private companies.

Since 1979, the Quebec stock savings plan (REA) enables taxpayers to build a portfolio by exempting from tax part of the amount invested in shares newly issued by a corporation, thus making large sums available to companies established in Quebec. Employees subscribing to share issues of their employers that are eligible under REA have an additional 25% deduction on the amount of their purchases.

In 1986, the Quebec government introduced a new measure to promote the creation of new companies. The companies are exempted from taxes on profits and capital for their first three taxation years. This exemption applies to the first \$200,000 in taxable income earned each year and to the first \$2 million in capital contributed. A tax credit is also offered to companies engaged in research and development projects.

Industries in Quebec that consume massive amounts of electricity also have benefits such as Hydro-Quebec's rate stabilization and rate discount programs.

**Ontario.** The Ontario Ministry of Industry, Trade and Technology accelerates introduction and application of new manufacturing technology; assists in product innovation and commercialization of new products and processes; promotes investment, both domestic and foreign; draws more companies into exporting; supports trade through international offices, trade shows, missions and the export success fund; promotes and assists the formation of small businesses and encourages expansion of the domestic market by identifying domestic sources of supply; and supports the growth of productive and stable employment in consultation and partnership with the private sector.

The ministry arranges for Ontario participation at trade fairs and exhibitions, organizes trade missions and business opportunity missions, conducts seminars, supplies information on agents and distributors and works closely with trading houses.

A program initiated in 1980 provides funding for hiring Ontario business or marketing grads to help exporters develop or expand their international marketing efforts.

The Ontario International Corp. (OIC) is a marketing agency for the government in Ontario. It explores world market opportunities for private sector service industries and public sector agencies in the development of major capital projects abroad. Its educational services division seeks markets for Ontario's education resources and services. OIC is not a funding agency. It



offers marketing and advisory services to Ontario engineers, consultants, architects, contractors, management consultants and other ministries and agencies.

The ministry's small business service sector and capital projects division provides services such as entrepreneurial development, employer's skill search and consulting services regarding plant locations, industrial parks and marketing.

The ministry acts as a catalyst in creating joint ventures, licensing agreements between foreign manufacturers and Ontario companies and attracting new investment.

The ministry has 18 field offices in Ontario and international offices in Chicago, Dallas, Atlanta, New York, Los Angeles, Boston, Hong Kong, Paris, Tokyo, Frankfurt, London, England, Singapore and Seoul.

**Manitoba.** The Manitoba Department of Business Development and Tourism, through the maintenance of a close working relationship between public and private sectors, acts as a catalyst in increasing Manitoba's level of entrepreneurial activity and self reliance in business. Through consultation with private sector organizations representing both business and tourism interests, the department provides leadership and support in shaping the future development of Manitoba's economy.

The Department of Business Development and Tourism is comprised of two divisions, business development and tourism. The business development division focuses its activity through three major program areas; business development, regional and community development and entrepreneurial development. The tourism division's program efforts are designed to accelerate growth in the job intensive tourism industry and improve and expand Manitoba's vacation and recreation opportunities. The new Canada-Manitoba Subsidiary Agreement for Tourism Development, designed in consultation with the tourism industry, will stimulate major tourism development over the next three years. This accord between the federal and provincial governments involves the investment of \$15 million each over a five-year period. The program, which focuses on further development of tourism facilities and market development, expires March 31, 1990.

**Saskatchewan.** The Saskatchewan Economic Development and Trade Department is the primary agency responsible for economic development policy. The department works to foster industrial development and attract investment, increase the sale of Saskatchewan's products

and services domestically and abroad, and increase benefits to Saskatchewan from major project development. To promote industrial development and attract investment to Saskatchewan, the department provides investment information and consultation to Saskatchewan companies wishing to expand and to outside companies wishing to develop in the province.

The Industrial Incentive Program (IIP), introduced in 1984, is one of the department's most successful programs. The goal of the IIP is to stimulate investment and permanent employment in Saskatchewan while helping to expand and diversify the province's manufacturing and processing sectors. This program provides \$7,500 for each job created to a maximum of 25% of their capital investment to companies investing at least \$30,000 in expansion and creating at least one permanent full-time job.

The department's cost-shared market study program helps investors find business opportunities in manufacturing and processing. The department will pay up to 50% of the cost of a study to a maximum of \$25,000.

The business immigration program encourages entrepreneurs from other countries to establish, acquire or make a substantial investment in the ownership of a business or commercial venture in Saskatchewan. Upon acceptance of their business proposal, immigrants are required to complete immigration formalities to obtain a visa.

Trade is essential to Saskatchewan's economy. Almost half of the province's products are exported and 25% of all jobs are trade-related. The department assists Saskatchewan exporters and companies with the potential to export goods or services by: providing information on markets and trends, offering consulting services, advertising, participating in trade shows, sponsoring incoming and outgoing trade missions, and administering assistance programs.

An aid to trade program is one of the department's most popular programs for exporters. It helps Saskatchewan manufacturers promote their products, enter new markets and make distribution arrangements in other countries. Aid to trade will cover up to 50% of the cost of market research, advertising, incoming buyers' missions, and shipping product samples to potential buyers.

The market development fund assists the exploration, development and expansion of markets for agricultural and food products produced or capable of being produced in Saskatchewan.

Funds are available for the development of products and markets, business feasibility studies and market research.

The trade opportunities program, introduced in 1986, gives Saskatchewan exporters financial assistance to hire college marketing graduates to assist in developing new foreign markets for their products and services. The program provides 50% of the new employee's salary and export travel expenses, to a maximum of \$13,000 and \$5,000 a year, respectively, for a period of two years.

Saskatchewan exports and market development is promoted through permanent trade representatives located in the United States, the United Kingdom and Hong Kong.

Major construction projects totalling over \$9 billion are under way or in the planning stages in Saskatchewan; each project is valued at \$10 million or more. To ensure Saskatchewan benefits from these projects in terms of employment and the sale of supplies, the major projects procurement policy is applied which encourages developers to use Saskatchewan suppliers if possible. The department assists Saskatchewan suppliers to take advantage of this market by: encouraging them to bid on contracts; providing information on import replacement opportunities; helping them develop new product lines; and encouraging suppliers to get involved in joint ventures with local and out-of-province companies.

**Alberta.** The Alberta Opportunity Co. (AOC), a Crown agency, promotes economic growth by stimulating new businesses and aiding existing enterprises. AOC gives priority to Albertans and Alberta-owned enterprises, small businesses and centres of small population.

To qualify for assistance, a business may be a proprietorship, partnership, co-operative or corporate body, must operate for gain or profit, must be in Alberta and must provide assurance that any aid given will be used exclusively in Alberta. Eligible businesses include manufacturing, processing and assembly operations, service industries, commercial wholesale and retail trade, recreational facilities, tourist establishments, local development organizations, student business enterprises and new industries which are unique and valuable additions to the province. The program is not designed for finance companies, suppliers of residential accommodation other than tourist facilities, public utilities including power generation and distribution, or resource-based industries such as mining and oil and gas production.

Assistance may provide for establishing new businesses, acquiring fixed assets — land,

buildings and equipment — expanding existing facilities, strengthening working capital, financing raw material or finished inventories for manufacturers, and research and development. Funds are made available directly or by guarantee in various forms.

Business counselling services of AOC include management advice and guidance on financial, technical and marketing matters for small and intermediate-sized Alberta businesses which cannot afford to obtain this type of help elsewhere. Services are provided through the company's head office in Ponoka and branch offices in Calgary, Lethbridge, Grande Prairie, St. Paul, Medicine Hat, Edson, Edmonton, Peace River, Lloydminster, Red Deer and Brooks.

**British Columbia.** The Ministry of Economic Development has programs, services and expertise for industry, the business community and government agencies. Goals of British Columbia's economic strategy are growth of employment and real income, improved efficiency, price and incomes stability, balanced regional economic development and industrial diversification.

An economics and statistics division carries out research and long-term economic assessment planning and forecasting. This complements the ministry's statistical and financial analysis and the policy planning and budgetary functions of the ministry of finance. The business and industrial development division designs, negotiates and monitors intergovernmental and government-industry programs, and provides their financial management. The international trade and investment division helps manufacturers develop, finds new export markets for BC goods and services and encourages new investment by BC companies and firms elsewhere in Canada and abroad. It sponsors trade missions and trade shows. The small business services branch of the business and industrial development division supports and strengthens small enterprises through financial assistance, problem solving, specialized research, management training and counselling. A central statistics bureau within the economics and statistics division collects and disseminates information on economic and social characteristics of the province and its regions.

The ministry maintains liaison with the British Columbia Development Corp. for development of serviced industrial land in areas where it was not previously available, or where high land costs prohibited location of individual firms. It provides loans to businesses to expand existing operations or create new ones. The ministry maintains a trade office and economic adviser at British Columbia House in London, England.

**Sources**

- 16.1 Industry Division, Statistics Canada.
- 16.2 Communications Branch, Department of Regional Industrial Expansion.
- 16.3 - 16.3.2, 16.3.4 Communications Branch, Department of Consumer and Corporate Affairs.
- 16.3.3 Education and Information Branch, Standards Council of Canada.
- 16.4 Supplied by the respective provincial government departments.

## TABLES

..	not available	e	estimate
...	not appropriate or not applicable	p	preliminary
—	nil or zero	r	revised
--	too small to be expressed	certain tables may not add due to rounding	

### 16.1 Value of shipments of goods of own manufacture, by province (million dollars)

Province or territory	1969	1979	1981	1983 <sup>1</sup>	1984
Newfoundland	242.4	1,028.0	1,241.3	1,174.8	1,170.3
Prince Edward Island	56.9	212.5	247.0	285.2	289.0
Nova Scotia	731.5	3,212.5	3,822.6	3,891.5	4,595.4
New Brunswick	708.9	2,970.5	3,844.2	3,504.8	4,092.3
Quebec	12,810.2	39,117.3	50,139.1	52,098.4	56,990.5
Ontario	23,847.8	76,220.2	93,989.5	103,885.0	121,726.4
Manitoba	1,230.0	3,914.7	4,977.0	4,957.0	5,036.1
Saskatchewan	530.4	1,863.3	2,503.6	2,619.5	2,851.6
Alberta	1,849.3	8,940.0	13,437.1	13,850.3	15,287.8
British Columbia	3,917.8	14,627.8	16,793.4	16,998.2	17,979.3
Yukon and Northwest Territories	5.2	26.3	34.9	49.0	51.3
Canada	45,930.4	152,133.1	191,029.7	203,313.7	230,070.1

<sup>1</sup> Statistics for the years 1970-82 were compiled on the basis of the 1970 Standard Industrial Classification (SIC), while those for 1983 and subsequent years were compiled on the basis of the 1980 Standard Industrial Classification. To ascertain the impact of this classification change, the reader is referred to the data for the year 1982 in Table 16.4, which is shown on the basis of both 1970 and 1980 classifications. The number of major industry groups under the 1980 SIC has increased from 20 to 22 with conceptual changes in the content of a few of these groups.

### 16.2 Value of shipments of goods of own manufacture, by industry group (million dollars)

Industry group	1979	1981	1983 <sup>1</sup>	1984
Food and beverage industries	25,372.7	31,765.9	33,882.1	36,175.2
Tobacco products industries	1,113.9	1,374.8	1,516.5	1,590.2
Rubber and plastics products industries	3,772.2	4,513.2	5,184.1	6,017.6
Leather industries	1,069.3	1,218.8	1,166.4	1,270.5
Textile industries	4,074.6	5,051.8	5,111.4	5,252.3
Knitting mills	830.0	1,012.3	1,012.3	1,012.3
Clothing industries	3,679.9	4,090.2	4,891.1	5,174.9
Wood industries	8,808.5	8,436.9	9,405.9	9,972.5
Furniture and fixture industries	2,061.7	2,772.8	2,696.8	3,021.5
Paper and allied industries	12,286.6	15,729.4	15,010.8	17,471.9
Printing, publishing and allied industries	4,721.5	6,463.6	7,579.4	8,659.4
Primary metal industries	11,856.5	14,449.5	13,664.9	16,431.5
Metal fabricating industries (except machinery and transportation equipment industries)	10,397.2	12,375.7	11,098.8	12,193.1
Machinery industries (except electrical machinery)	6,528.5	8,689.0	5,784.8	6,863.2
Transportation equipment industries	19,667.0	21,681.3	28,455.6	37,916.3
Electrical products industries	6,660.6	8,938.4	9,903.1	11,632.1
Non-metallic mineral products industries	4,091.5	4,769.3	4,779.1	5,246.4
Petroleum and coal products industries	12,370.8	20,453.3	23,324.4	23,336.8
Chemical and chemical products industries	9,531.0	13,189.5	15,686.1	17,174.9
Other manufacturing industries	3,239.1	4,054.0	4,172.5	4,669.8
All manufacturing industries	152,133.1	191,029.7	203,313.7	230,070.1

<sup>1</sup> See footnote 1, Table 16.1.

<sup>2</sup> Now included with textile industries.

### 16.3 Net profit<sup>1</sup> as a percentage of total revenue of corporations

Industry group	1979	1981	1982	1983	1984
Food and beverage industries	4.1	3.5	3.6	4.3	4.1
Rubber industries	6.4	5.8	2.9	3.8	5.7
Textile industries <sup>2</sup>	6.4	4.4	0.6	5.3	5.3
Wood industries <sup>3</sup>	9.7	1.4	5.1	2.3	1.4
Paper and allied industries	9.9	9.8	0.7	0.8	3.5
Printing, publishing and allied industries	8.3	8.9	8.0	8.6	8.7
Primary metal industries	11.1	9.5	2.1	1.0	4.4
Metal fabricating industries	8.0	6.8	2.8	4.0	4.8
Machinery industries	6.7	4.3	0.9	1.0	3.9



### 16.3 Net profit<sup>1</sup> as a percentage of total revenue of corporations (concluded)

Industry group	1979	1981	1982	1983	1984
Transportation equipment industries	3.8	1.4	4.4	3.6	6.4
Electrical products industries	6.2	6.7	4.6	5.7	5.8
Non-metallic mineral products industries	7.1	6.3	4.0	4.7	7.5
Petroleum and coal products industries	12.4	9.9	5.1	2.0	6.9
Chemical and chemical products industries	9.4	8.9	4.7	6.3	7.3
Miscellaneous manufacturing industries <sup>4</sup>	7.1	6.5	4.4	5.4	5.6

<sup>1</sup> Before taxes and extraordinary items.<sup>2</sup> Includes knitting mills and clothing industries.<sup>3</sup> Includes furniture and fixture industries.<sup>4</sup> Includes tobacco and leather industries.

### 16.4 Summary statistics, annual census of manufacturers, 1973-84<sup>1</sup>

Year	Establishments No.	Manufacturing activity						
		Production and related workers				Cost of fuel and electricity <sup>2,3</sup> \$'000	Cost of materials and supplies used \$'000	Value of shipments of goods of own manufacture \$'000
		Number	Man-hours paid '000	Wages \$'000				
1973	31,145	1,275,985	2,665,681	10,060,062	1,221,885	37,600,538	66,674,393	28,716,119
1974	31,535	1,300,792	2,713,436	11,637,073	1,623,617	47,499,791	82,455,109	35,084,752
1975	30,100	1,271,786	2,613,062	12,699,228	1,805,398	51,177,942	88,427,031	36,105,457
1976	29,053	1,276,693	2,650,230	14,697,394	2,325,264	56,982,416	98,280,777	39,921,910
1977	27,716	1,242,103	2,577,429	15,814,667	2,790,351	63,015,412	108,881,959	44,104,548
1978 <sup>4</sup>	31,963	1,310,293	2,720,935	17,928,190	3,397,375	74,919,990	128,889,376	51,523,349
1979 <sup>5</sup>	34,578	1,360,883	2,834,642	20,376,979	3,879,624	90,270,324	152,133,081	60,623,169
1980	35,495	1,346,187	2,780,203	22,162,309	4,448,859	99,897,576	168,058,662	65,851,774
1981	35,780	1,337,433	2,755,669	24,539,352	5,468,509	114,283,081	191,029,704	74,050,661
1982 <sup>7</sup>	35,834	1,212,424	2,473,214	24,261,593	6,028,226	111,971,399	187,932,882	69,052,759
1982 <sup>6</sup>	34,121	1,205,859	2,460,189	24,180,897	6,020,309	111,834,089	187,710,349	68,988,161
1983	35,287	1,193,912	2,455,229	25,763,545	6,637,059	119,759,106	203,313,746	76,895,569
1984	36,464	1,240,816	2,583,486	28,294,553	7,306,383	136,133,629	230,070,091	88,667,660
Total activity								
		Working owners and partners		Total employees <sup>7</sup>		Cost of materials and supplies used and goods purchased for resale <sup>8</sup> \$'000	Value of shipments and other revenue <sup>9</sup> \$'000	Value added <sup>10</sup> \$'000
		Number	Withdrawals \$'000	Number	Salaries and wages \$'000			
1973	31,145	8,981	..	1,751,066	15,220,033	45,697,053	76,689,795	30,766,506
1974	31,535	7,067	..	1,785,977	17,556,982	57,794,605	95,030,218	37,654,465
1975	30,100	6,977	..	1,741,159	19,156,679	62,384,245	102,148,633	38,683,718
1976	29,053	5,666	..	1,743,047	21,799,733	69,487,283	113,416,996	43,553,263
1977	27,716	4,859	..	1,704,583	23,595,238	77,761,372	126,324,545	46,801,174
1978 <sup>4</sup>	31,963	6,008	..	1,790,618	26,571,596	91,866,286	148,742,898	54,430,575
1979 <sup>5</sup>	34,578	6,574	..	1,855,393	30,112,290	110,772,016	176,352,327	64,340,724
1980	35,495	6,385	..	1,850,436	33,133,061	121,105,853	193,310,632	69,895,467
1981	35,780	5,930	..	1,853,968	37,106,195	137,410,611	218,550,416	78,443,843
1982 <sup>7</sup>	35,834	5,405	..	1,709,418	37,712,333	134,108,948	214,429,419	73,411,747
1982 <sup>6</sup>	34,121	4,342	..	1,702,303	37,624,733	133,965,324	214,201,297	73,347,874
1983	35,287	4,539	..	1,671,140	39,609,111	143,453,528	231,831,663	81,719,064
1984	36,464	4,711	..	1,722,044	43,076,015	164,923,460	264,236,955	94,044,693

<sup>1</sup> Statistics for the years 1970-82 were compiled on the basis of the 1970 edition of the Standard Industrial Classification (SIC), while data for the 1982 (restated) and subsequent years have been compiled on the basis of the 1980 revision of the Standard Industrial Classification. Thus 1982 is a "link year" which the reader may refer to to measure the impact of the change in classification on the various manufacturing statistics.<sup>2</sup> Cannot be reported separately for manufacturing and non-manufacturing activities but related substantially to manufacturing activity.<sup>3</sup> From 1970-81 inclusive, the cost of fuel and electricity was not collected separately for small firms and was included in the cost of materials and supplies used.<sup>4</sup> Some 3,820 establishments with manufacturing shipments of \$2,257 million were added to the census in 1978 as a result of improved coverage, mostly of small establishments.<sup>5</sup> Some 1,142 establishments with manufacturing shipments of \$557 million were added to the census in 1979 as a result of improved coverage, mostly of small establishments.<sup>6</sup> Data for 1982 restated to the 1980 revision of the Standard Industrial Classification.<sup>7</sup> Includes production and related workers, administrative and office employees, sales, distribution and other employees; excludes working owners and partners.<sup>8</sup> Includes supplies used in both manufacturing and non-manufacturing activity.<sup>9</sup> Includes shipments of goods of own manufacture, value of shipments of goods purchased for resale and other operational revenue.<sup>10</sup> Value of total operational revenue less total cost of materials, supplies, fuel and electricity used and goods purchased for resale in the same condition; all adjusted for inventory changes where required.

### 16.5 Establishments in the manufacturing industries, by number employed and by province, 1979 and 1984, with totals for 1980-83

Year and province or territory	Number employed									Total
	Under 5	5 to 9	10 to 19	20 to 49	50 to 99	100 to 199	200 to 499	500 to 999	1,000 or over	
Number of establishments										
1979										
Newfoundland	114	44	33	45	32	41	27	5		314
Prince Edward Island	56	29	30	31	4	4				150
Nova Scotia	262	106	144	130	59	36	27	7	4	775
New Brunswick	194	108	100	97	45	44	29	6	3	626
Quebec	2,717	1,809	1,779	2,026	986	568	362	82	52	10,381
Ontario	3,738	2,319	2,268	2,620	1,356	925	629	170	79	14,104
Manitoba	413	208	225	225	112	101	30	14		1,328
Saskatchewan	284	149	117	108	46	24	13	3		744
Alberta	738	432	409	400	164	100	48	14		2,305
British Columbia	1,468	695	577	510	248	151	124	37	12	3,822
Yukon and Northwest Territories	8	7	9	5						29
Canada	9,992	5,906	5,691	6,182	3,063	1,972	1,284	332	156	34,578
1984										
Newfoundland	121	56	35	51	26	40	22	4		333
Prince Edward Island	59	31	40	12	54	4				146
Nova Scotia	290	167	126	142	54	28	22	11		840
New Brunswick	222	110	123	107	49	33	24	7		675
Quebec	3,022	1,939	1,837	1,960	938	502	336	79	36	10,649
Ontario	4,451	2,502	2,482	2,624	1,437	952	604	146	65	15,263
Manitoba	399	223	232	217	108	67	32	8	4	1,290
Saskatchewan	293	171	126	107	42	26	9	3		777
Alberta	836	509	457	378	159	96	36	10		2,481
British Columbia	1,694	736	541	525	206	148	108	14	9	3,981
Yukon and Northwest Territories	4	16	9							29
Canada	11,391	6,460	5,985	6,134	3,031	1,878	1,189	275	121	36,464
Canada										
1980	10,201	6,347	5,872	6,271	3,087	1,971	1,267	331	148	35,495
1981	10,478	6,366	5,925	6,274	2,996	1,999	1,268	318	156	35,780
1982	10,710	6,521	6,072	6,246	2,897	1,847	1,129	274	138	35,834
1983 <sup>1</sup>	10,568	6,358	5,977	6,089	2,941	1,850	1,123	258	123	35,287

<sup>1</sup> See footnote 1, Table 16.1.

### 16.6 Establishments in manufacturing industries, by industry group and number employed, 1984<sup>1</sup>

Industry group	Establishments with total employment of									Total
	Under 5	5 to 9	10 to 19	20 to 49	50 to 99	100 to 199	200 to 499	500 to 999	1,000 or over	
Food industries	709	517	573	1,018	235	162	27	9		3,250
Beverage industries	175			85	30	3		4		297
Tobacco products industries			14			11				25
Rubber products industries	20	40		48	16	14				145
Plastic products industries	404	225	232	132	84					1,077
Leather and allied products industries	81	56	63	70	100	31				401
Primary textile industries	16	19	26	59	25	77				222
Textile products industries		567	144	75	42	35				863
Clothing industries	473	344	406	613	348	186	82	13		2,465
Wood industries	1,351	660	1,274	174	95	102				3,561
Furniture and fixture industries	562	285	270	297	156					1,665
Paper and allied products industries	67	46	76	152	91	96	90	60		678
Printing, publishing and allied industries	2,269	1,187	1,417	224	61	50	22	17		5,280
Primary metal industries		237		54						441
Fabricated metal products industries		3,842	1,250	169	54	14				5,329

# 16.6 Establishments in manufacturing industries, by industry group and number employed, 1984<sup>1</sup> (concluded)

Industry group	Establishments with total employment of										Total
	Under 5	5 to 9	10 to 19	20 to 49	50 to 99	100 to 199	200 to 499	500 to 999	1,000 or over		
Machinery industries	377	284	311	365	189	97	52	← 14 →		1,689	
Transportation equipment industries	445	221	187	203	126	93	104	← 67 →		1,446	
Electrical and electronic products industries	335	175	← 562 →			125	102	33	13	1,345	
Non-metallic mineral products industries	← 1,179 →		← 342 →		68	24	8	—		1,621	
Refined petroleum and coal products industries	← 103 →					13	← 4 →			120	
Chemical and chemical products industries	294	207	192	250	← 156 →	65	320	← 6 →		1,263	
Other manufacturing industries	← 3,015 →						39			3,281	

See footnote 1, Table 16.1.

# 6.7 Analysis of value of shipments by establishments in manufacturing industries, selected years, 1979-84

Year and shipment size of establishment	Establish- ments No.	Value of shipments of goods of own manufacture \$'000	Average per establishment \$'000	Proportion of total shipments %
1979				
Up to \$99,999	7,367	363,131	49.3	0.2
100,000 - \$ 199,999	4,395	638,666	145.3	0.4
200,000 - 499,999	6,080	1,981,348	325.9	1.3
500,000 - 999,999	4,391	3,147,585	716.8	2.1
1,000,000 - 4,999,999	7,696	17,617,505	2,289.2	11.6
5,000,000 - 9,999,999	2,016	14,343,110	7,114.6	9.4
10,000,000 - 24,999,999	1,609	25,082,481	15,588.9	16.5
25,000,000 - 49,999,999	556	19,145,685	34,434.7	12.6
50,000,000 and over	468	69,813,568	149,174.3	45.9
Total and average	34,578	152,133,081	4,400.0	100.0
1981				
Up to \$99,999	6,409	325,284	50.8	0.2
100,000 - \$ 199,999	4,461	651,951	146.1	0.3
200,000 - 499,999	6,378	2,085,166	326.9	1.1
500,000 - 999,999	4,629	3,321,892	717.6	1.7
1,000,000 - 4,999,999	8,508	19,757,096	2,322.2	10.4
5,000,000 - 9,999,999	2,231	15,890,280	7,122.5	8.3
10,000,000 - 24,999,999	1,891	29,474,907	15,586.9	15.4
25,000,000 - 49,999,999	681	23,430,484	34,406.0	12.3
50,000,000 and over	592	96,092,644	162,318.7	50.3
Total and average	35,780	191,029,704	5,339.0	100.0
1983				
Up to \$99,999	5,644	293,043	51.9	0.2
100,000 - \$ 199,999	4,325	630,636	145.8	0.3
200,000 - 499,999	6,469	2,119,892	327.7	1.1
500,000 - 999,999	4,874	3,489,358	715.9	1.7
1,000,000 - 4,999,999	8,522	19,765,594	2,319.4	9.7
5,000,000 - 9,999,999	2,264	15,910,444	7,027.6	7.8
10,000,000 - 24,999,999	1,862	29,173,107	15,667.6	14.3
25,000,000 - 49,999,999	716	24,931,342	34,820.3	12.3
50,000,000 and over	611	107,000,328	175,123.3	52.6
Total and average	35,287	203,313,746	5,761.7	100.0
1985				
Up to \$99,999	5,636	290,669	51.6	0.1
100,000 - \$ 199,999	4,263	623,908	146.4	0.3
200,000 - 499,999	6,699	2,205,415	329.2	1.0
500,000 - 999,999	5,029	3,618,689	719.6	1.6
1,000,000 - 4,999,999	8,940	20,752,129	2,321.3	9.0
5,000,000 - 9,999,999	2,445	17,222,369	7,043.9	7.5
10,000,000 - 24,999,999	1,938	30,458,366	15,716.4	13.2
25,000,000 - 49,999,999	825	28,148,908	34,119.9	12.2
50,000,000 and over	689	126,749,639	183,961.7	55.1
Total and average	36,464	230,070,091	6,309.5	100.0

Footnote 1, Table 16.1.

### 16.8 Establishments in manufacturing industries, by value of shipments of own manufactured goods, for Canada, 1979-84 and by province, selected years, 1980-84

Year and area	Up to \$99,999	\$100,000 to \$199,999	\$200,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 to \$4,999,999	\$5,000,000 to \$9,999,999	\$10,000,000 to \$24,999,999	\$25,000,000 to \$49,999,999	\$50,000,000 and over	Total
Canada										
1979	7,367	4,395	6,080	4,391	7,696	2,016	1,609	556	468	34,595
1980	6,996	4,474	6,302	4,549	8,182	2,120	1,735	625	512	35,495
1981	6,409	4,461	6,378	4,629	8,508	2,231	1,891	681	592	35,780
1982	6,205	4,358	6,708	4,783	8,544	2,201	1,809	666	560	35,834
1983 <sup>1</sup>	5,644	4,325	6,469	4,874	8,522	2,264	1,862	716	611	35,287
1984	5,636	4,263	6,699	5,029	8,940	2,445	1,938	825	689	36,464
1980										
Nfld.	93	35	34	32	← 122 →	4	← 4 →	5	4	320
PEI	45	23	22	20	← 34 →	47	34	5	14	152
NS	210	95	156	90	← 164 →	47	34	5	14	815
NB	152	69	122	76	← 126 →	47	28	10	11	641
Que.	2,116	1,326	1,961	1,429	← 2,597 →	583	432	154	142	10,740
Ont.	2,583	1,759	2,441	1,877	← 3,424 →	983	834	325	228	14,454
Man.	267	157	242	160	← 300 →	87	69	19	10	1,311
Sask.	208	110	140	92	← 150 →	33	27	4	7	771
Alta.	419	328	461	313	← 573 →	126	98	27	43	2,388
BC	902	563	715	454	← 734 →	181	195	78	53	3,875
YT and NWT	← 10 →	8	6	← 4 →	—	—	—	—	—	28
1982										
Nfld.	77	16	47	25	← 125 →	43	← 36 →	9	5	295
PEI	31	13	19	21	← 43 →	37	32	7	—	127
NS	176	84	167	83	← 167 →	47	36	9	12	781
NB	114	51	125	72	← 139 →	37	32	7	14	591
Que.	2,032	1,370	1,962	1,404	← 2,599 →	609	450	165	162	10,753
Ont.	2,266	1,667	2,658	2,061	← 3,675 →	1,035	872	344	244	14,822
Man.	217	157	252	161	← 309 →	73	75	22	13	1,275
Sask.	147	114	155	90	← 163 →	35	32	6	7	745
Alta.	349	298	506	368	← 629 →	143	110	37	50	2,490
BC	793	585	810	489	← 749 →	190	181	69	53	3,915
YT and NWT	3	3	7	9	← 6 →	—	—	—	—	28
1984										
Nfld.	84	36	43	40	← 76 →	26	21	← 7 →	33	333
PEI	35	21	20	← 91 →	196	51	32	11	15	140
NS	188	102	154	102	← 154 →	35	41	← 20 →	84	840
NB	130	78	115	102	← 154 →	35	41	← 20 →	67	675
Que.	1,671	1,276	1,889	1,505	← 2,693 →	705	526	210	174	10,641
Ont.	2,035	1,637	2,642	2,141	← 3,929 →	1,169	941	426	343	15,265
Man.	197	147	268	158	← 327 →	85	70	23	15	1,290
Sask.	147	106	185	91	← 159 →	41	32	7	9	77
Alta.	340	320	518	360	← 606 →	145	106	29	57	2,488
BC	805	537	854	514	← 758 →	181	167	108	57	3,988
YT and NWT	4	3	11	← 11 →	—	—	—	—	—	28

<sup>1</sup> See footnote 1, Table 16.1.

### 16.9 Analysis of employment in establishments in manufacturing industries, selected years, 1979-84

Year and size of establishment by number employed <sup>1</sup>	Establishments No.	Employees No.	Working owners and partners No.	Proportion of total employment
1979				
Under 5 employed	9,992	17,977	4,681	
5 - 9	5,906	38,241	1,438	
10 - 19	5,691	78,282	329	
20 - 49	6,182	193,659	107	
50 - 99	3,063	214,268	8	
100 - 199	1,972	277,455	9	
200 - 499	1,284	387,054	2	
500 - 999	332	224,808	—	
1,000 or more	156	328,144	—	
Head offices	—	95,505	—	
Total	34,578	1,855,393	6,574	10



### 16.9 Analysis of employment in establishments in manufacturing industries, selected years, 1979-84 (concluded)

Year and size of establishment by number employed <sup>1</sup>	Establishments No.	Employees No.	Working owners and partners No.	Proportion of total employment %
1981				
Under 5 employed	10,478	20,193	4,356	1.1
5 - 9 "	6,366	41,506	1,150	2.2
10 - 19 "	5,925	81,109	265	4.4
20 - 49 "	6,274	196,654	121	10.6
50 - 99 "	2,996	208,008	33	11.2
100 - 199 "	1,999	280,379	3	15.1
200 - 499 "	1,268	382,350	—	20.6
500 - 999 "	318	216,685	—	11.7
1,000 or more "	156	322,704	—	17.4
Head offices	—	104,380	—	5.6
Total	35,780	1,853,968	5,930	100.0
1983 <sup>2</sup>				
Under 5 employed	10,568	21,038	3,375	1.3
5 - 9 "	6,358	41,932	828	2.5
10 - 19 "	5,977	82,408	188	4.9
20 - 49 "	6,089	189,428	121	11.3
50 - 99 "	2,941	205,638	17	12.3
100 - 199 "	1,850	257,766	6	15.4
200 - 499 "	1,123	336,613	4	20.2
500 - 999 "	258	177,836	—	10.6
1,000 or more "	123	259,989	—	15.6
Head offices	—	98,492	—	5.9
Total	35,287	1,671,140	4,539	100.0
1984				
Under 5 employed	11,391	22,818	3,451	1.3
5 - 9 "	6,460	42,364	934	2.5
10 - 19 "	5,985	82,212	204	4.8
20 - 49 "	6,134	191,464	71	11.1
50 - 99 "	3,031	211,070	41	12.3
100 - 199 "	1,878	260,358	6	15.1
200 - 499 "	1,189	357,376	—	20.7
500 - 999 "	275	189,545	4	11.0
1,000 or more "	121	265,708	—	15.4
Head offices	—	99,129	—	5.8
Total	36,464	1,722,044	4,711	100.0

<sup>1</sup> Includes working owners and partners.

<sup>2</sup> See footnote 1, Table 16.1.

### 16.10 Trends in domestic exports of manufactures (customs basis), 1972-85 (million dollars)

Year	Fabricated materials	End products	Total manufactured goods <sup>1</sup>
1972	6,758.2	7,136.2	13,894.4
1973	8,223.9	8,386.6	16,610.5
1974	10,695.7	9,236.8	19,932.5
1975	9,883.8	10,472.7	20,356.5
1976	12,227.6	12,711.2	24,938.8
1977	14,926.9	15,231.2	30,158.1
1978	19,155.0	18,855.3	38,010.3
1979	24,375.6	20,923.8	45,299.4
1980	29,344.9	21,850.5	51,195.4
1981	30,540.3	25,473.3	56,013.6
1982	27,865.1	28,690.8	56,555.9
1983	29,971.6	33,285.0	63,256.6
1984	36,026.8	44,770.8	80,797.6
1985	36,780.5	49,952.5	86,733.0

<sup>1</sup> These categories of exports are only approximately equivalent to exports of manufactured goods.

**16.11 Destination of manufacturing shipments by region, by value and per cent, 1984<sup>1,2</sup>**

Manufacturing region of shipments	Destination region					
	Atlantic	Quebec	Ontario	Prairies	British Columbia	Exports
Value of shipments received \$'000,000						
Atlantic	5,467	891	690	151	73	2,877
Quebec	2,511	29,783	9,654	1,893	1,017	12,132
Ontario	2,486	9,701	62,767	6,189	2,532	38,051
Prairies	143	869	1,717	16,031	1,394	3,028
British Columbia	66	282	633	1,454	9,187	6,358
Total	10,673	41,527	75,461	25,718	14,202	62,444
Percentage of value of shipments						
Atlantic	54	9	7	1	1	28
Quebec	4	52	17	3	2	21
Ontario	2	8	52	5	2	31
Prairies	1	4	7	69	6	13
British Columbia	—	2	4	8	51	35
Total	5	18	33	11	6	27

<sup>1</sup> This survey is conducted every five years.<sup>2</sup> See footnote 1, Table 16.1.**16.12 Number of employees by industry group and province, 1983 and 1984**

Year and industry group	Province or territory					
	Nfld.	PEI	NS	NB	Que.	Ont.
1983						
Food industries	9,170	1	10,597	9,034	43,812	72,533
Beverage industries	611	1	1	913	9,826	11,619
Tobacco products industries	1	—	1	59	4,312	3,351
Rubber products industries	—	—	1	27	1	14,848
Plastic products industries	1	—	434	223	8,194	18,592
Leather and allied products industries	1	1	1	1	13,108	11,493
Primary textile industries	—	1	909	1	16,525	11,493
Textile products industries	1	1	1	1	15,208	13,112
Clothing industries	—	1	974	358	63,460	32,656
Wood industries	380	139	1,879	3,510	27,367	19,562
Furniture and fixture industries	1	—	238	354	14,298	23,401
Paper and allied products industries	1	—	2,877	5,143	40,829	41,001
Printing, publishing and allied industries	527	222	1,710	1,160	27,074	55,647
Primary metal industries	1	—	1	1	26,974	62,676
Fabricated metal products industries	367	148	1,204	1,157	30,046	73,271
Machinery industries	1	1	1	417	13,194	40,687
Transportation equipment industries	1	172	2,303	1	32,090	121,943
Electrical and electronic products industries	1	1	1	1	32,176	83,039
Non-metallic mineral products industries	1	1	750	975	11,706	22,873
Refined petroleum and coal products industries	1	—	1	1	2,974	10,934
Chemical and chemical products industries	1	1	981	369	24,173	52,397
Other manufacturing industries	97	1,650	447	1	1	39,930
All manufacturing industries	15,836	3,061	34,223	28,429	474,896	838,673
	Man.	Sask.	Alta.	BC	YT and NWT	Canada <sup>2</sup>
Food industries	8,601	4,108	12,611	14,246	1	186,687
Beverage industries	1,245	962	2,234	3,099	1	31,327
Tobacco products industries	90	1	97	126	—	8,110
Rubber products industries	1	1	326	414	—	25,142
Plastic products industries	1	103	1,381	1,734	—	31,648
Leather and allied products industries	446	1	1	1	1	23,674
Primary textile industries	1	—	1	1	—	29,626
Textile products industries	578	106	694	925	1	31,164
Clothing industries	7,111	300	1,621	3,258	1	109,816
Wood industries	2,010	1	5,418	40,392	1	101,965
Furniture and fixture industries	1,774	1	1,679	1,773	—	43,694
Paper and allied products industries	1,859	1	2,239	17,390	—	114,308
Printing, publishing and allied industries	4,599	1	7,987	1	1	110,159
Primary metal industries	1,997	1	3,123	6,942	—	105,352
Fabricated metal products industries	4,108	1,538	8,718	8,836	—	129,393
Machinery industries	3,778	1,895	5,008	4,178	—	69,557

## 16.12 Number of employees by industry group and province, 1983 and 1984 (concluded)

Year and industry group	Province or territory					
	Man.	Sask.	Alta.	BC	YT and NWT	Canada <sup>2</sup>
1983 (continued)						
Transportation equipment industries	5,714	620	1,936	5,763	1	173,360
Electrical and electronic products industries	2,970	1,270	2,708	3,926	1	127,922
Non-metallic mineral products industries	1,045	954	4,501	4,200	1	47,449
Refined petroleum and coal products industries	1	1	2,196	1,128	1	18,917
Chemical and chemical products industries	1,027	482	4,841	2,967	—	87,824
Other manufacturing industries	1,110	561	2,511	2,719	1	64,046
All manufacturing industries	51,359	18,866	72,292	133,150	355	1,671,140
1984						
	Nfld.	PEI	NS	NB	Que.	Ont.
Food industries	9,606	1,763	10,207	9,221	45,107	72,489
Beverage industries	589	1	1	948	10,213	11,847
Tobacco products industries	1	—	1	1	4,056	3,113
Rubber products industries	—	—	1	26	1	15,187
Plastic products industries	1	1	463	217	8,936	21,150
Leather and allied products industries	1	—	1	1	9,310	13,779
Primary textile industries	—	1	802	1	15,762	10,963
Textile products industries	—	1	1	64	15,228	13,584
Clothing industries	—	1	1,021	1	63,454	33,634
Wood industries	335	219	1,867	3,503	28,603	20,840
Furniture and fixture industries	1	—	233	295	14,804	21,952
Paper and allied products industries	1	—	2,993	5,738	41,107	41,690
Printing, publishing and allied industries	493	1	1	1,184	28,955	57,364
Primary metal industries	1	—	1	1	27,723	65,045
Fabricated metal products industries	237	169	1,248	1,119	30,959	75,331
Machinery industries	1	1	1	389	13,324	43,147
Transportation equipment industries	1	106	3,233	1	32,200	143,855
Electrical and electronic products industries	1	1	1,257	1	34,580	87,260
Non-metallic mineral products industries	1	1	1	1	1	24,046
Refined petroleum and coal products industries	1	—	1	1	2,336	9,468
Chemical and chemical products industries	1	1	887	367	24,420	51,863
Other manufacturing industries	114	138	1	1	1	40,320
All manufacturing industries	15,907	2,963	35,024	28,531	484,883	880,927
1984						
	Man.	Sask.	Alta.	BC	YT and NWT	Canada <sup>2</sup>
Food industries	8,340	3,974	11,872	14,430	—	187,009
Beverage industries	1,255	1	2,107	2,962	—	31,710
Tobacco products industries	102	1	77	147	—	7,626
Rubber products industries	1	1	360	379	—	25,582
Plastic products industries	915	123	1,582	1,879	—	35,319
Leather and allied products industries	436	1	1	1	—	24,378
Primary textile industries	1	—	1	1	—	28,117
Textile products industries	1	—	762	1,032	—	31,955
Clothing industries	6,962	397	1,527	3,112	—	110,634
Wood industries	1,932	1,233	5,508	38,901	—	102,941
Furniture and fixture industries	1,846	1	1,507	1,515	—	45,287
Paper and allied products industries	1,746	1	2,187	17,433	—	115,799
Printing, publishing and allied industries	4,636	1	7,664	8,791	—	113,447
Primary metal industries	2,121	1	3,656	6,982	—	108,950
Fabricated metal products industries	3,759	1,283	7,034	8,063	—	129,202
Machinery industries	1	1,836	4,996	4,301	—	72,777
Transportation equipment industries	5,627	591	1,958	6,094	—	195,629
Electrical and electronic products industries	3,020	1,418	3,324	4,290	—	135,951
Non-metallic mineral products industries	1,229	1,011	3,963	4,220	—	48,893
Refined petroleum and coal products industries	1	1	2,981	1,035	1	17,264
Chemical and chemical products industries	991	442	5,157	3,030	—	87,802
Other manufacturing industries	1,168	1	2,780	2,983	1	65,772
All manufacturing industries	51,303	18,861	71,451	131,909	285	1,722,044

<sup>1</sup> Confidential.<sup>2</sup> See footnote 1, Table 16.1.

### 16.13 Value of shipments of goods of own manufacture by industry group and province, 1983 and 1984 (million dollars)

Year and industry group	Province or territory					
	Nfld.	PEI	NS	NB	Que.	Ont.
<b>1983</b>						
Food industries	503.3	1	893.3	845.9	7,854.9	11,655.1
Beverage industries	88.3	1	1	138.2	1,076.8	1,920.3
Tobacco products industries	1	—	1	—	704.9	811.6
Rubber products industries	—	1	1	—	1	1,283.6
Plastic products industries	1	1	34.1	27.0	788.2	1,755.8
Leather and allied products industries	1	1	1	1	418.5	678.1
Primary textile industries	—	1	65.1	1	1,515.7	1,066.1
Textile products industries	1	1	1	1	1,176.1	1,031.2
Clothing industries	—	1	39.1	6.5	3,002.9	1,285.0
Wood industries	24.6	8.3	104.9	251.3	2,056.6	1,572.2
Furniture and fixture industries	1	—	12.5	17.3	779.7	1,551.3
Paper and allied products industries	1	—	319.6	755.3	5,062.2	5,041.6
Printing, publishing and allied industries	30.9	11.0	87.1	60.0	2,154.5	3,802.7
Primary metal industries	1	—	1	1	4,101.7	7,738.8
Fabricated metal products industries	25.6	9.4	87.6	82.7	2,763.6	6,256.4
Machinery industries	1	1	1	29.0	886.6	3,579.6
Transportation equipment industries	1	8.0	238.8	1	3,896.5	23,141.7
Electrical and electronic products industries	1	1	1	1	2,572.7	6,536.7
Non-metallic mineral products industries	1	1	69.7	100.8	1,059.9	2,272.7
Refined petroleum and coal products industries	1	—	1	1	5,426.7	8,650.5
Chemical and chemical products industries	1	—	128.5	92.1	3,368.9	9,422.8
Other manufacturing industries	3.8	3.3	18.5	1	1	2,831.1
All manufacturing industries	1,174.8	285.2	3,891.5	3,504.8	52,098.4	103,885.0
	Man.	Sask.	Alta.	BC	YT and NWT	Canada <sup>2</sup>
Food industries	1,447.5	817.2	3,240.6	2,120.7	1	29,591.4
Beverage industries	152.1	106.8	295.0	415.5	—	4,290.7
Tobacco products industries	—	1	—	—	1	1,516.5
Rubber products industries	1	1	23.0	22.1	—	2,141.2
Plastic products industries	1	12.9	151.1	171.0	—	3,042.9
Leather and allied products industries	31.9	1	1	1	1	1,166.4
Primary textile industries	—	—	1	14.7	—	2,716.6
Textile products industries	28.7	6.7	65.0	47.7	1	2,394.8
Clothing industries	315.8	18.1	98.0	124.6	1	4,891.1
Wood industries	134.1	1	501.7	4,641.6	1	9,405.9
Furniture and fixture industries	116.0	1	103.7	109.2	—	2,696.8
Paper and allied products industries	218.4	1	380.9	2,851.9	—	15,010.8
Printing, publishing and allied industries	279.2	1	491.2	1	1	7,579.4
Primary metal industries	266.7	1	561.9	703.9	—	13,664.9
Fabricated metal products industries	301.2	104.4	677.0	790.9	—	11,098.8
Machinery industries	319.0	158.5	464.2	329.6	—	5,784.8
Transportation equipment industries	392.7	47.7	114.2	436.0	1	28,455.6
Electrical and electronic products industries	272.9	85.9	154.4	212.6	—	9,903.1
Non-metallic mineral products industries	116.8	112.8	566.8	436.8	1	4,779.1
Refined petroleum and coal products industries	1	1	4,033.2	2,338.8	1	23,324.4
Chemical and chemical products industries	144.1	119.0	1,748.0	554.2	—	15,686.1
Other manufacturing industries	42.8	24.8	120.6	136.2	1	4,172.5
All manufacturing industries	4,957.0	2,619.5	13,850.3	16,998.2	49.0	203,313.7
	Nfld.	PEI	NS	NB	Que.	Ont.
<b>1984</b>						
Food industries	489.0	202.1	886.1	875.1	8,481.2	12,411.5
Beverage industries	97.8	1	1	146.0	1,175.4	2,003.7
Tobacco products industries	—	—	—	—	747.6	842.6
Rubber products industries	—	—	1	—	1	1,476.0
Plastic products industries	1	1	38.8	26.2	878.0	2,071.1
Leather and allied products industries	1	—	1	1	441.0	749.6
Primary textile industries	—	1	59.6	1	1,535.5	1,062.0
Textile products industries	1	1	1	3.1	1,206.2	1,111.4
Clothing industries	—	1	42.2	1	3,159.5	1,419.2
Wood industries	25.2	10.4	118.2	283.9	2,386.7	1,795.7
Furniture and fixture industries	1	—	13.6	16.1	906.0	1,766.4
Paper and allied products industries	1	—	434.0	1,000.2	5,863.6	5,851.9
Printing, publishing and allied industries	32.6	1	1	69.8	2,494.9	4,399.1
Primary metal industries	—	—	1	1	4,675.7	9,444.7
Fabricated metal products industries	16.2	9.2	104.9	96.4	3,237.2	6,961.2
Machinery industries	1	1	1	32.2	1,017.1	4,284.5
Transportation equipment industries	1	9.1	373.8	1	4,304.8	31,499.7
Electrical and electronic products industries	1	1	56.4	1	2,975.2	7,688.1
Non-metallic mineral products industries	1	1	4.3	1	1	2,648.8
Refined petroleum and coal products industries	—	—	1	1	5,161.5	8,847.9
Chemical and chemical products industries	1	1	169.9	95.3	3,548.3	10,241.6
Other manufacturing industries	4.4	4.4	1	1	1	3,149.7
All manufacturing industries	1,170.3	289.0	4,595.4	4,092.3	56,990.5	121,726.4



### 16.13 Value of shipments of goods of own manufacture by industry group and province, 1983 and 1984 (million dollars) (concluded)

Year and industry group	Province or territory					
	Man.	Sask.	Alta.	BC	YT and NWT	Canada <sup>2</sup>
1984 (continued)						
Food industries	1,488.7	877.9	3,580.8	2,323.0	—	31,624.2
Beverage industries	159.0	1	328.5	414.8	—	4,551.0
Tobacco products industries	—	—	—	—	—	1,590.2
Rubber products industries	—	—	28.9	21.8	—	2,507.2
Plastic products industries	105.3	12.8	178.5	196.2	—	3,510.4
Leather and allied products industries	34.9	1	1	8.2	—	1,270.5
Primary textile industries	1	—	1	13.3	—	2,729.3
Textile products industries	1	—	58.3	52.8	—	2,523.0
Clothing industries	300.1	16.7	93.4	134.4	—	5,174.9
Wood industries	134.5	109.8	539.3	4,568.7	—	9,972.5
Furniture and fixture industries	113.8	1	98.9	100.5	—	3,021.5
Paper and allied products industries	249.3	1	452.0	3,144.9	—	17,471.9
Printing, publishing and allied industries	315.9	1	521.0	565.0	—	8,659.4
Primary metal industries	332.2	1	795.2	804.2	—	16,431.5
Fabricated metal products industries	263.2	96.9	614.8	793.0	—	12,193.1
Machinery industries	1	155.7	543.1	386.9	—	6,863.2
Transportation equipment industries	421.5	45.9	124.2	716.9	—	37,916.3
Electrical and electronic products industries	284.9	104.5	227.9	261.1	—	11,632.1
Non-metallic mineral products industries	136.8	113.0	490.2	464.8	—	5,246.4
Refined petroleum and coal products industries	1	1	4,316.7	2,257.1	1	23,336.8
Chemical and chemical products industries	169.0	141.3	2,096.4	604.0	—	17,174.9
Other manufacturing industries	49.8	1	135.7	147.5	1	4,669.8
All manufacturing industries	5,036.1	2,851.6	15,288.0	17,979.1	51.3	230,070.1

<sup>1</sup> Confidential.<sup>2</sup> See footnote 1, Table 16.1.

### 16.14 Summary of manufacturing industries, by Census Metropolitan Area, 1982 and 1983<sup>1</sup>

Year and Census Metropolitan Area	Estab- lish- ments No.	Employees		Costs \$'000,000		Total value added \$'000,000	Value of shipments of goods of own manufacture \$'000,000
		Number	Salaries and wages \$'000,000	Fuel and electric- ity	Materials and supplies used		
1982							
Calgary, Alta.	777	23,566	555.3	55.3	1,886.5	1,147.2	3,017.4
Chicoutimi-Jonquière, Que.	96	10,516	329.2	69.3	821.4	478.5	1,472.0
Edmonton, Alta.	866	30,597	753.3	177.0	4,681.6	1,670.8	6,511.0
Halifax, NS	196	6,518	133.2	15.0	1,201.5	261.1	1,495.5
Hamilton, Ont.	793	64,140	1,591.4	276.7	4,080.9	2,870.8	7,161.8
Kitchener, Ont.	718	45,067	875.5	62.7	1,903.9	1,701.4	3,634.1
London, Ont.	362	20,709	456.0	32.9	956.3	929.8	1,836.8
Montreal, Que.	5,691	243,665	4,898.4	490.1	15,244.2	10,693.5	26,218.5
Ottawa-Hull, Ont., Que.	458	19,766	433.4	74.5	1,465.2	1,007.9	2,438.3
Quebec, Que.	574	19,811	417.2	58.4	1,433.5	952.9	2,542.0
Regina, Sask.	148	5,731	139.4	27.3	718.3	311.6	1,018.4
Saint John, NB	74	5,945	140.5	59.6	1,222.4	318.4	1,619.0
St. Catharines-Niagara, Ont.	427	33,358	851.5	154.8	1,855.9	1,590.3	3,578.0
St. John's, Nfld.	96	3,738	74.8	7.3	142.0	137.9	283.6
Saskatoon, Sask.	186	6,014	122.0	15.5	408.8	246.6	661.5
Sudbury, Ont.	88	5,784	155.5	71.5	321.6	218.2	321.6
Thunder Bay, Ont.	108	6,936	166.7	72.9	398.8	354.7	826.6
Toronto, Ont.	7,246	328,893	6,800.4	502.6	19,499.9	15,234.8	34,070.8
Vancouver, BC	2,243	66,668	1,688.7	169.1	4,976.2	3,125.0	8,198.6
Victoria, BC	234	5,000	120.0	4.9	133.0	201.7	337.6
Windsor, Ont.	469	29,914	725.1	70.1	3,185.7	1,479.6	4,738.8
Winnipeg, Man.	893	41,610	786.5	62.6	2,245.8	1,512.2	3,740.1

1983

Calgary, Alta.	770	21,136	535.2	54.7	1,802.3	1,020.9	2,860.1
Chicoutimi-Jonquière, Que.	87	10,292	362.2	67.1	847.0	635.3	1,547.0
Edmonton, Alta.	840	27,054	715.6	230.4	4,936.0	1,885.0	6,992.1
Halifax, NS	203	6,518	145.8	17.1	1,379.9	373.3	1,770.3
Hamilton, Ont.	763	59,884	1,569.7	294.5	4,150.4	3,064.6	7,400.4
Kitchener, Ont.	726	44,330	932.9	69.3	1,965.7	1,969.3	3,970.0
London, Ont.	367	19,824	457.5	37.0	905.2	978.4	1,814.9
Montreal, Que.	5,514	239,044	5,088.6	572.5	15,874.6	11,687.0	27,697.7
Ottawa-Hull, Ont., Que.	432	19,019	463.9	79.0	1,356.5	1,034.7	2,348.5
Quebec, Que.	544	18,113	404.2	69.6	1,516.9	971.8	2,543.1
Regina, Sask.	162	5,025	125.4	28.1	702.1	326.6	1,036.9
Saint John, NB	73	5,986	153.1	44.1	1,265.2	344.0	1,632.1
St. Catharines-Niagara, Ont.	407	31,925	889.5	183.4	2,072.9	1,901.9	4,165.2
St. John's, Nfld.	98	3,462	75.5	8.5	141.2	156.6	298.1
Saskatoon, Sask.	188	5,895	132.2	17.0	403.8	286.1	695.5

### 16.14 Summary of manufacturing industries, by census metropolitan area, 1982 and 1983<sup>1</sup> (concluded)

Year and Census Metropolitan Area	Estab- lish- ments No.	Employees		Costs \$'000,000		Total value added \$'000,000	Value of shipments of goods of own manufacture \$'000,000
		Number	Salaries	Fuel and electricity	Materials and supplies used		
			and wages \$'000,000				
1983 (continued)							
Sudbury, Ont.	77	5,559	154.0	48.6	65.6	228.7	338.5
Thunder Bay, Ont.	103	6,663	183.9	86.1	450.8	358.4	884.0
Toronto, Ont.	7,397	328,351	7,318.8	568.5	20,860.6	16,413.2	36,832.8
Vancouver, BC	2,214	62,884	1,697.2	183.3	5,077.9	3,388.8	8,556.4
Victoria, BC	228	4,105	109.4	4.5	127.9	155.2	277.1
Windsor, Ont.	456	33,665	910.7	81.5	3,779.1	1,951.6	5,770.7
Winnipeg, Man.	880	39,864	795.1	59.8	2,044.1	1,597.3	3,706.6

<sup>1</sup> See footnote 1, Table 16.1.

### 16.15 Percentages of value of shipments of goods of own manufacture accounted for by the four leading enterprises in the 40 leading industries of Canada, ranked by 1982 shipments

Industry	Enter- prises No.	Estab- lish- ments No.	Value of shipments of goods of own manufacture \$'000,000	Percentage of shipments accounted for by the four leading enterprises				
				1982	1980	1978	1976	1974
Petroleum refining	16	41	21,370	61.4	61.7	63.9	68.1	67.8
Motor vehicle manufacturers	14	21	12,344	94.7	93.7	93.6	93.4	90.1
Pulp and paper mills	57	142	10,650	40.3	30.9	35.0	33.0	34.0
Slaughtering and meat processors	426	486	7,927	39.8	42.4	44.0	49.5	50.2
Iron and steel mills	37	53	5,715	81.6	77.9	79.2	81.5	76.8
Dairy products industry	236	402	5,364	40.1	37.3	35.2	37.3	37.3
Miscellaneous machinery and equipment manufacturers	1,241	1,339	5,124	9.9	8.3	8.9	11.0	12.7
Motor vehicle parts and accessories	286	354	5,060	49.6	44.6	54.5	50.5	46.2
Sawmills and planing mills	1,081	1,223	4,373	18.1	19.8	20.2	19.4	18.8
Industrial chemicals (organic), n.e.s.	30	45	3,654	64.7	64.2	62.9	61.0	61.6
Smelting and refining	14	33	3,369	75.7	73.1	76.0	71.2	75.0
Commercial printing	2,574	2,703	3,246	17.9	18.8	18.8	21.1	20.9
Metal stamping and pressing industry	604	682	3,208	51.5	54.1	37.0	37.0	37.0
Miscellaneous food processors, n.e.s.	249	317	3,131	32.7	34.5	35.0	37.8	39.5
Communications equipment manufacturers	400	443	3,055	57.8	52.4	55.9	63.9	60.8
Industrial chemicals (inorganic), n.e.s.	40	95	2,529	43.6	41.2	38.7	46.3	44.7
Plastics fabricating industry, n.e.s.	788	890	2,425	10.0	10.5	10.6	11.1	11.3
Feed industry	450	570	2,404	23.6	25.7	27.7	27.2	27.4
Rubber products industries	121	146	2,009	57.4	56.6	56.9	57.3	51.4
Aircraft and aircraft parts manufacturers	143	151	1,999	68.4	75.0	72.4	65.2	57.9
Publishing and printing	454	552	1,970	62.5	56.5	47.7	48.2	48.7
Miscellaneous chemical industries, n.e.s.	279	362	1,890	25.4	27.0	31.9	32.2	33.2
Manufacturers of electrical industrial equipment	195	264	1,801	44.8	46.8	47.5	51.4	50.7
Fish products industry	277	360	1,707	42.6	44.0	46.3	49.0	44.5
Breweries	8	40	1,667	98.8	99.0	98.9	99.5	98.9
Miscellaneous paper converters	209	274	1,584	27.8	28.5	31.0	32.8	34.2
Fruit and vegetable canners and preservers	134	177	1,489	40.0	39.0	39.0	39.3	37.3
Women's clothing factories	517	554	1,472	9.1	6.4	6.3	7.3	7.5
Manufacturers of pharmaceuticals and medicines	114	131	1,456	28.9	27.1	27.0	27.5	25.6
Bakeries	1,335	1,404	1,440	32.0	33.5	32.4	31.9	37.0
Miscellaneous metal fabricating industries	545	569	1,412	14.1	12.2	13.3	13.7	13.4
Manufacturers of plastics and synthetic resins	51	70	1,368	49.1	57.3	59.2	52.8	56.3
Men's clothing factories	412	449	1,364	15.4	20.6	17.1	12.0	12.7
Fabricated structural metal industry	233	259	1,363	34.7	38.2	41.2	41.8	43.9
Soft drink manufacturers	165	203	1,319	51.6	48.2	49.6	50.5	50.4
Poultry processors	70	96	1,215	36.8	36.3	39.2	39.0	33.9
Office and store machinery manufacturers	85	92	1,180	65.1	75.1	81.0	76.6	71.5
Tobacco products manufacturers	10	15	1,160	99.6	99.6	99.4	99.5	97.7
Publishing only	757	817	1,152	40.0	40.7	42.9	41.5	38.1
Manufacturers of electric wire and cable	22	52	1,117	78.1	80.2	80.3	81.4	80.2

## 16.16 Capacity utilization rates, by quarter, 1971-86

Year	Quarter	Manufacturing industries		
		Durable goods	Non-durable goods	Total
1971	1st	80.1	85.5	82.7
	2nd	82.2	85.6	83.8
	3rd	84.1	87.2	85.6
	4th	85.0	87.6	86.3
1972	1st	83.0	87.8	85.3
	2nd	84.7	89.7	87.1
	3rd	86.0	90.2	88.0
	4th	89.0	91.5	90.2
1973	1st	93.3	92.6	93.0
	2nd	91.9	92.8	92.3
	3rd	92.9	91.6	92.3
	4th	93.4	93.8	93.6
1974	1st	96.3	94.3	95.3
	2nd	93.8	92.4	93.1
	3rd	91.7	90.0	90.9
	4th	89.0	87.1	88.1
1975	1st	82.6	84.1	83.3
	2nd	81.8	82.0	81.9
	3rd	82.2	80.3	81.3
	4th	83.1	80.1	81.7
1976	1st	83.6	82.7	83.2
	2nd	84.5	86.6	85.5
	3rd	83.4	86.2	84.7
	4th	82.2	84.5	83.3
1977	1st	83.9	84.3	84.1
	2nd	82.7	83.9	83.3
	3rd	82.3	83.1	82.6
	4th	82.0	83.0	82.5
1978	1st	81.3	84.2	82.7
	2nd	84.3	84.8	84.5
	3rd	84.8	85.7	85.2
	4th	87.5	87.6	87.5
Year	Quarter	Manufacturing industries		
		Durable goods	Non-durable goods	Total
1979	1st	89.1	87.5	88.3
	2nd	87.8	87.6	87.7
	3rd	87.8	87.7	87.8
	4th	86.0	87.6	86.8
1980	1st	84.9	87.8	86.3
	2nd	79.0	85.2	81.9
	3rd	78.7	84.3	81.3
	4th	80.3	84.8	82.4
1981	1st	79.7	85.1	82.2
	2nd	81.2	85.8	83.4
	3rd	77.2	82.8	79.9
	4th	73.0	81.0	76.8
1982	1st	70.1	78.3	74.0
	2nd	65.9	74.9	70.1
	3rd	62.5	73.9	67.9
	4th	60.2	73.4	66.4
1983	1st	62.2	76.7	69.0
	2nd	65.2	78.0	71.2
	3rd	67.5	79.2	73.0
	4th	71.1	80.1	75.3
1984	1st	71.3	78.6	74.7
	2nd	71.8	80.9	76.1
	3rd	73.3	80.9	76.9
	4th	72.8	80.6	76.5
1985	1st	73.8	80.0	76.7
	2nd	75.3	80.2	77.6
	3rd	76.9	81.7	79.2
	4th	76.0	82.3	79.0
1986	1st	74.7	82.5	78.4
	2nd	73.6	82.2	77.6

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6.1, 16.2 Industry Division, Statistics Canada.

5.3 Industrial Organization and Finance Division, Statistics Canada.

5.4 - 16.9 Industry Division, Statistics Canada.

5.10 External Trade Division, Statistics Canada.

5.11 - 16.15 Industry Division, Statistics Canada.

5.16 Science, Technology and Capital Stock Division, Statistics Canada.





CHAPTER 17

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**MERCHANDISING  
AND SERVICES**

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## THEN



Blacksmiths had the largest number of shops in the personal service group of establishments in 1930, and they earned only slightly less than did boot and shoe repair shops. (1034-35)

In 1931, over 40 p.c. of the total number of retail stores in Canada were operated "without the aid of paid employees, the work being carried on entirely by the proprietor or by the proprietor with the assistance of family members not carried on payroll" (1034-44)

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country more healthy and happier. They are INVARIABLE  
to INVALIDS and the aged, and for those who are  
unable to do so, they are a great help.

As the Anderson & Keddy Earth Closet is a Form  
that the world is now generally using, it is the most  
valuable.

No more work is required. Clothes can be used equally  
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They are used in all the Hospitals, Forts, Prisons,  
Orphan Asylums, Schools, Hospitals, and all Public Institutions.

## NOW

Lower interest rates and improved economic conditions helped to push the number of new motor vehicles sold in 1985 up 19.7% to a record 1.5 million units, valued at \$10.0 billion.

During 1984, vending machines sales increased 11.2% over the previous year with coffee machines, packaged confectionery, pastry and snack food machines, and fresh food combination machines, accounting for most of the increase.

The Canadian tourist industry includes almost 300,000 hotel and motel rooms, nearly 40,000 restaurants and food-service facilities, and about 4,500 travel agencies.

1986 was the best year for tourism in Canada since 1967, with Expo '86, a favourable currency exchange rate, and a strong federal government marketing campaign, bringing over 12.2 million foreign visitors to Canada by the end of August.



## CHAPTER 17

# MERCHANDISING AND SERVICES

Distribution of goods and services from producer to consumer, principally through wholesale and retail channels and service businesses is generally known as the marketing process.

Merchandising industries include those businesses providing wholesale and retail functions. Wholesaling exists in a variety of forms: wholesale merchants, agents and brokers, primary products dealers, manufacturers' sales branches, petroleum bulk tank plants and truck distributors. Retailing encompasses all sales activities related to transmitting goods to final consumers, both through traditional store locations and such facilities as direct selling and machine vending. Services cover those firms primarily engaged in providing a wide range of recreational, personal and business services to individuals, businesses and government operations.

Statistics on distributive trade industries are gathered by Statistics Canada through monthly, annual and occasional surveys to produce a variety of statistical information.

### 17.1 Retail trade

The retail trade sector includes those industries, classified according to the 1980 Standard Industrial Classification, which are primarily engaged in buying commodities for resale to the general public for personal or household consumption and in providing related services. A vast array of products are marketed, bought and sold at the various levels of the domestic economy and finally reach the Canadian consumer on the retail market. The current measure of retail trade is used by economists and statisticians to estimate total national expenditure on consumer goods (final demand), as shown in the national accounts and the many economic indicators derived from them. Retail trade statistics are collected by the industry division of Statistics Canada from monthly surveys of all retail chains (four or more stores in the same kind of business under one owner), and of a sample of independent retailers based on the retail location concept.

Table 17.1 shows retail trade by kind of business (a refinement of the 1971 Standard Industrial Classification) and by province from 1982 to 1985, and indicates percentage changes in sales for 1985 over 1984 and the percentage distribution of sales by kind of business for 1985. The results for 1985 show the favourable effect of a general improvement in the economy. As inflation and interest rates declined and the unemployment rate subsided in 1985 to a somewhat lower level than in previous years, total retail trade rose by 11.5% to reach a total of \$129.4 billion, up from \$116.1 billion in 1984.

Adjusted for price changes (inflation), total retail sales increased in 1985 by 8.2% over 1984, the most substantial real growth in recent years.

Motor vehicle dealers led the growth in sales in 1985 with an increase of \$5.2 billion over 1984, followed by combination food stores and service stations, both increasing by \$1.4 billion. With the exception of garages and household furniture stores, all retail businesses shared in the overall growth of retail sales in Canada in 1985. The three largest categories were motor vehicle dealers (\$26.0 billion or 20.1% of total retail trade), combination food stores (\$23.8 billion or 18.4%), and department stores (\$12.0 billion or 9.3%). All provinces registered higher sales in 1985 compared with 1984, with increases ranging from 5.1% in Prince Edward Island to 15.2% in Manitoba.

Because of its demographic predominance, Ontario remained the largest market in Canada with 37.9% of total retail sales in 1985, followed by Quebec (24.6%) and British Columbia (11.1%). But the largest amount of money spent on purchases of goods per capita was recorded in Alberta (\$5,758), followed by Ontario (\$5,405) and Nova Scotia (\$5,200). The national average per capita expenditure on consumer goods was \$5,104 in 1985.

#### 17.1.1 Chain and independent stores

For the monthly retail trade survey a retail chain is defined as an organization operating four or

more retail stores in the same kind of business under the same legal ownership. Department stores are classified as chains even if occasionally they do not meet exactly this definition. Independent retailers are defined as those who operate one to three stores, although they may be affiliated with a larger retail organization.

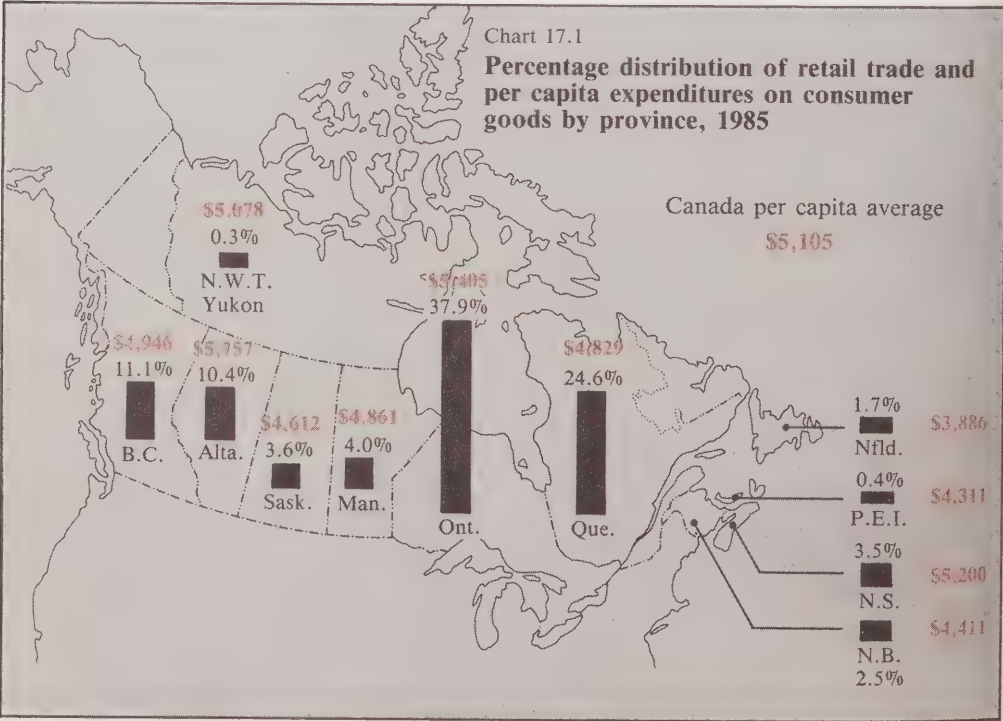
Table 17.2 provides data on the retail sales of chain and independent stores by kind of business in the years 1982-85, with percentage changes for 1985 over 1984 and for 1983 over 1982. Throughout the four-year period, independent retailing has held its predominance in the automotive sector (independent motor vehicle dealers accounting for 98.5% of total motor vehicle sales in 1985), as well as in other major groups such as grocery, confectionery and sundries stores, and pharmacies, patent medicines and cosmetics stores. Chain store merchandising has been dominant in combination food stores (supermarkets), as well as in general merchandise and variety stores, and has substantially increased its market share in clothing and shoe stores. Sales of family clothing chains have, for example, increased from 52.8% in 1982 to 67.1% of the total sales of all family clothing stores in 1985.

Total sales of independent retailers in 1985 were \$75.1 billion, while chain store sales amounted to \$54.3 billion. Over a four-year period, independent retailers have gradually increased their market share from 56.2% of total retail trade in 1982 to 58.0% in 1985.

### 17.1.2 Department stores

Department stores are known as general merchandise stores carrying different lines of commodities such as clothing, furniture, appliances and home furnishings, with no single category of merchandise representing more than 50% of total sales revenue. Within a retail location goods are usually displayed in separate departments and the accounting is done on a departmental basis.

Table 17.4 shows data on department store sales for the period 1982 to 1985. With sales in 1985 of \$12.0 billion, department stores represented the third largest component of the retail trade sector. Faced with strong competition from the specialty chain stores in recent years, the market share held by department stores has declined from 10.5% in 1982 to 9.3% in 1985. Junior department stores, defined as retailing entities selling the same wide range of



goods sold in the more traditional major department stores but popularly described as discount operations, had sales of \$4.6 billion in 1985, up 8.5% from 1984. Major department store organizations recorded total sales of \$7.5 billion or 62.1% of total department store sales, representing an increase in sales volume of 4.1% over 1984.

Of the 17 department store organizations in operation as of December 1985, 12 were considered major department stores, operating a total of 317 separate locations. Five were considered junior department store organizations and operated in 482 locations.

At the department level, 32 of the 40 departments covered by the Statistics Canada survey recorded higher sales in 1985 compared with 1984. The largest increases were in hardware, paints and wallpaper (23.4%), furs (14.6%), jewellery (13.4%) and women's and misses' dresses, housedresses, aprons and uniforms (12.6%). Decreases ranged from 9.9% for gasoline, oil, auto accessories, repairs and supplies, to 0.6% for draperies, curtains and furniture covers.

### 17.1.3 New motor vehicle sales

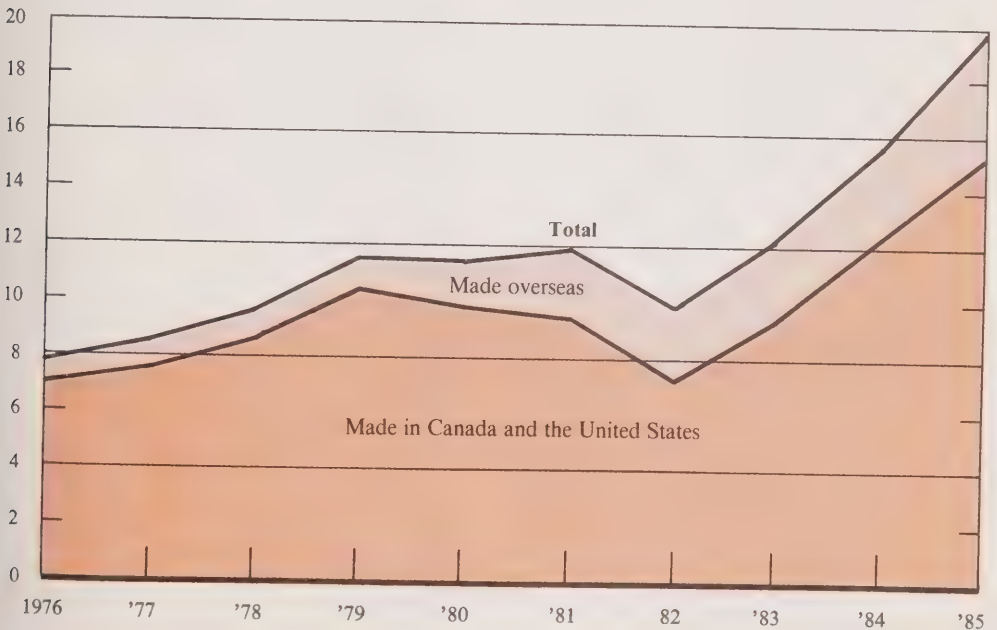
Because of the tremendous importance of the automobile industry in Canada, retail sales of new cars constitute one of the leading economic indicators of the health of the national economy, accounting for one of the largest components of total personal spending for consumer goods and services in the gross domestic product. Lower interest rates and generally improved economic conditions contributed to a substantial 19.2% rise in number of new motor vehicles sold in 1985, to reach a record 1.5 million units sold, valued at \$19.9 billion. Passenger car sales totalled 1.1 million units in 1985, valued at \$13.7 billion, an increase of 17.1% over 1984. Truck and bus sales rose 25.9% to a level of 0.4 million units, for a value of \$6.2 billion.

North American manufacturers held 69.9% of the Canadian passenger car market in 1985 (based on unit sales), compared with a share of 74.7% in 1984. Japanese and South Korean manufacturers, at 58.2% and 23.1% respectively, held the major share of the Canadian imported passenger car market in 1985. Sales by North American manufacturers accounted

Chart 17.2

### Retail sales of new motor vehicles in Canada, 1976-85

Billion dollars





for 87.7% of the domestic truck and bus market, virtually unchanged from 1984.

Statistics on new motor vehicles are obtained by the retail trade section, industry division of Statistics Canada directly from Canadian manufacturers and from importers or distributors of new vehicles, operating in Canada. These sources supply both the number of motor vehicles sold by their dealer network and the total retail value of sales. The unit data may differ from other data available, such as factory shipments and registrations, owing to variations in definition and treatment of new vehicles in relation to the different concepts used in each survey.

#### 17.1.4 Campus book stores

Retail trade statistics are collected annually from more than 300 book stores on the campuses of universities and at other postsecondary educational institutions. Owing to their location and the seasonal nature of their business, campus book stores are not included in the monthly estimates of retail trade. From 1981 to 1985 total retail sales by campus book stores increased by 49.6% from \$157.7 million to \$235.8 million. In the 1984-85 academic year, of the total sales of \$235.8 million, \$153.7 million or 65.2% was accounted for by textbooks; \$19.8 million or 8.4% by other books; \$34.4 million or 14.6% by stationery and supplies; and \$27.8 million or 11.8% by sales of miscellaneous items.

#### 17.1.5 Non-store retailing

Consumer goods, in addition to being sold in retail stores, often reach the household consumer through other channels. These channels bypass the retail outlet completely in moving from primary producer, manufacturer, importer, wholesaler or specialized direct seller, to the household consumer. Statistics Canada conducts annual surveys of two distinct forms of non-store retailing: merchandise sales through vending machines, and sales by manufacturers and distributors specializing in direct-sales methods such as catalogue and mail-order sales, door-to-door canvassing, and house parties.

**Vending machine sales.** This survey is designed to measure the value of merchandise sales made through automatic vending machines owned and operated by independent operators and subsidiaries or divisions of manufacturers and wholesalers of vended products. Excluded from coverage are the sales through many thousands of vending machines (carrying such commodities as cigarettes, beverages, confectionery) which

are owned and operated by retail stores, restaurants and service stations; these sales statistics are usually inextricable from data collected in the course of other surveys.

During 1984, the 714 operators of 141,476 vending machines covered by this survey reported sales of \$379.0 million (Table 17.8). These sales represented an increase of 11.2% from the \$340.9 million recorded in the previous year. Increased sales through the following principal types of machine were chiefly responsible for the increase in receipts between 1983 and 1984: coffee machines, sales up 31.8% to \$81.3 million; packaged confectionery, pastry and snack food machines, sales up 12.9% to \$54.2 million; and fresh food combination machines, sales up 16.7% to \$24.5 million.

**Direct selling** refers to the substantial volume of consumer goods sold to the household consumer for his personal use by other than the regular retail store outlet, department store, chain store or independent retail dealer. This occurs at all levels in the movement of goods from the primary producer or importer to the consumer: at the agricultural level by greenhouse and nursery operators and some market gardeners; at the manufacturing stage through sales to employees or to the general public at company-operated on-premises stores; through home-delivered products such as newspapers and milk; through integrated sales divisions using mail-order or door-to-door canvassers; by some wholesalers and importers; and by specialized direct sellers.

During 1985, Canadian householders spent \$2.5 billion on a wide variety of goods purchased directly through various methods of distribution which bypass traditional retailing outlets (Table 17.10). Major commodities handled by these direct selling businesses in 1985 included: newspapers, \$348.6 million; dairy products, \$320.0 million; books, \$244.9 million; cosmetics and personal care products, \$190.3 million; and household electrical appliances, \$179.8 million.

Personal selling, through individual canvassing or group demonstrations such as house parties, is the best known of the various methods of direct selling and accounted for \$813.8 million or 32.5% of the total spent on direct purchases in 1985. Sales by mail order amounted to \$624.0 million and comprised 24.9% of the total direct sales. (The data on mail-order purchases do not include foreign mail-order sales made to Canadians nor the mail-order sales of Canadian department



stores.) Sales made by home delivery as another mode of direct selling to the household consumer accounted for 23.5% or \$588.6 million. Other methods of direct selling which bypass the regular retail outlets are sales made from showrooms and premises of manufacturing companies and primary producers, which accounted for 13.7% (\$344.0 million), and miscellaneous sales made from temporary roadside stands and market stalls, exhibitions and shows, as well as from newspaper coin boxes, which accounted for 5.4% (\$135.6 million) in 1985.

**Market research.** Much of the data on distributive trades is brought together with other industrial and demographic data in an annual publication entitled *Market Research Handbook* (Statistics Canada 63-224). The basic purpose of this handbook is to provide a convenient source of information and reference for people who are engaged in analyzing Canadian markets at local, provincial, regional and national levels. The handbook indicates trends by showing data for earlier years as well as reporting the latest available information. These data should help the marketing practitioner in assessing the dynamics of marketing such as population growth, demographic characteristics, income distribution and changes in consumer habits.

## 17.2 Service trades

The broad range of services provided by businesses classified to this sector includes amusement and recreational services (such as theatres, bowling, golf, skiing); personal services (barber and beauty shops, laundering and dry cleaning, funeral directors); food serving and accommodation services (hotels, restaurants, caterers); business services (computer, accounting, legal); and miscellaneous services (automobile rental, travel agencies).

Also in the scope of this major sector are non-commercial services such as institutions, trade and professional associations, religious, community and fraternal organizations and service clubs. Services related to health, education, finance and governments are excluded, as are service stations, garages and repair shops, which are included in retail trade.

### 17.2.1 Traveller accommodation

Table 17.12 summarizes the major types of accommodation services over a five-year period from 1980 to 1984. Total accommodation receipts in 1984 amounted to \$5.8 billion, an increase of 26.6% over 1980. Hotels accounted

for \$4.7 billion or 82.1% of the 1984 total receipts while motels totalled \$599.2 million (10.4%) and the remaining \$432.5 million (7.5%) was accounted for by tourist homes, tourist courts and cabins, outfitters and tent and trailer campgrounds. Total receipts include such source items as sales of rooms, food, alcoholic beverages, merchandise and other services provided by traveller accommodation businesses — telephone, valet, laundry and parking. A further breakdown of traveller accommodation data by province is included in Table 17.13.

### 17.2.2 Food and beverage industry

In January 1980 a sample survey of the food and beverage industry was introduced by Statistics Canada to produce monthly estimates of receipts for the following five kinds of business: licensed, unlicensed and take-out restaurants, and caterers and taverns.

Restaurant, caterer and tavern receipts totalled nearly \$11.8 billion in 1985 or 9.0% more than the \$10.8 billion estimated for 1984. Of the 1985 totals, \$5.3 billion was reported by licensed restaurants, \$3.3 billion by unlicensed restaurants, \$1.4 billion by take-outs, \$897.5 million by caterers and \$882.7 million by taverns.

### 17.2.3 Computer services

In 1984 there were 2,209 computer services companies, reporting operating revenues of nearly \$2.9 billion. Of these companies, 2,109 were primarily engaged in providing computer services, with operating revenue over \$1.7 billion (58.6%) while 100 firms were primarily engaged in providing rental or lease of EDP hardware, with operating revenue over \$1.2 billion (41.4%). Table 17.23 summarizes the growth of companies that were primarily engaged in providing computer services over a four-year period.

## 17.3 Wholesale trade

Wholesalers are primarily engaged in buying merchandise for resale to retailers; to industrial, commercial, institutional and professional users; to other wholesalers; to farmers for use in farm production; or for export. Or they act as agents in connection with such transactions. Businesses engaged in more than one activity, such as wholesaling and retailing or wholesaling and manufacturing, are considered to be primarily in wholesale trade if the greater part of their gross margin (the difference between the total sales and the cost of goods sold) is due to their wholesaling activity.

Wholesale trade statistics measure the total volume of trade conducted by all wholesale

businesses operating in Canada, whether they are Canadian-owned or subsidiaries of foreign companies and include both domestic and export sales. The total volume of trade measured by Statistics Canada cannot be equated with the value of goods passing through the wholesale sector of the economy because at times wholesale businesses sell to each other and thus the value of the same merchandise may be recorded more than once.

According to certain common characteristics, each wholesale establishment and location (wholesale outlet) is assigned to one of the following two principal types of operation:

**Wholesale merchants** — establishments or locations primarily engaged in buying and selling goods on their own account. Included in this category are wholesalers known as: drop shippers or desk jobbers, export merchants, import merchants, mail-order wholesalers, rack jobbers or voluntary general wholesale distributors.

**Agents and brokers** — establishments or locations primarily engaged in buying or selling, on a commission basis, products owned by others. They may be known as an auction company, commission merchant, import agent or broker, export agent or broker, manufacturer's agent, purchasing agent or resident buyer and selling agent.

### 17.3.1 Wholesale merchants

Wholesale merchants accounted for about 84% of the total volume of trade and had estimated sales of \$180.2 billion in 1984, up 13.4% from the \$158.9 billion volume reported the previous year. The most notable increases in volume of trade were reported by wholesalers of scrap and waste material (percentage cannot be disclosed due to confidentiality requirements), electrical machinery equipment and supplies (28.5%), motor vehicles and accessories (23.9%), paper and paper products (23.0%), hardware, plumbing and heating equipment (22.9%) and general merchandise (23.0%).

The share of the total volume of trade by selected groups of wholesale merchants has been fairly stable: wholesalers of electrical, farm and industrial machinery secured 18.3% of the total volume in 1984, 17.6% of the total volume in 1983 and 17.5% in 1982; the food group obtained 15.9% of the 1984 volume, 16.3% in 1983 and 15.9% in 1982; dealers in petroleum products (including coal and coke) accounted for 15.4% in 1984 as compared with 16.4% in 1983 and 17.4% in 1982; while wholesalers of

primary producers' farm products accounted for 11.0% in 1984, 11.7% in 1983 and 12.9% in 1982.

In terms of geographical distribution of the volume of trade, wholesale merchant establishments in Quebec and Ontario accounted for 61.3% of the total volume in 1984, up from 59.4% in 1983. Establishments in the Atlantic provinces claimed 4.1% in 1984, virtually unchanged from 1983, while merchants in Western Canada achieved 34.6% of the total volume of trade in 1984, down from 36.2% in 1983.

Tables 17.15 and 17.16 show the volume of trade of wholesale merchant establishments for the years 1981-84.

### 17.3.2 Agents and brokers

During 1984, establishments operating as agents and brokers reported earnings of \$969.8 million in gross commissions (compared with commissions of \$848.7 million in 1983) by facilitating the movement of goods valued at \$32,168.4 million (compared with goods valued at \$29,903.9 million in 1983). Commissions as a percentage of the value of goods bought or sold on commission increased to 3.0% in 1984 from 2.8% in 1983. In terms of the total volume of trade reported by the 4,470 establishments classified as agents or brokers, the volume of trade in 1984 totalled \$33.6 billion, an increase of 7.7% from the \$31.2 billion reported the previous year.

As in 1983, the greatest share in 1984 of total commissions was reported by the agent and broker establishments in the petroleum products group (including coal and coke) at 24.0%, with commissions of \$232.6 million on goods valued at \$4,773.8 million. In 1983, the petroleum products group had reported commissions of \$204.6 million on goods valued at \$4,347.3 million, for a 24.1% share of total commissions earned. The farm products industry group was the second largest source of agents' commission income in 1984, with \$164.6 million of commissions on goods valued at \$7,574.5 million, as compared with commissions of \$147.6 million and goods valued at \$6,759.4 million in 1983.

Table 17.17 shows the volume of trade of agent and broker establishments, for the years 1981-84. Table 17.18 shows the gross commissions earned by agent and broker establishments, for the years 1981-84.

### 17.3.3 Control and sale of alcoholic beverages

The retail sale of alcoholic beverages in Canada is controlled by provincial and territorial government liquor control authorities. Alcoholic

beverages are sold directly by most of these authorities to the consumer or to licensees for resale. However, in some provinces beer and wine are sold directly by breweries and wineries to consumers or to licensees for resale. During the year ended March 31, 1985, provincial government liquor authorities operated 1,765 retail stores and had 596 agencies in smaller centres.

Table 17.21 shows the value and volume of sales of alcoholic beverages in the years ended March 31, 1982-85. The value does not always represent the final retail selling price to the consumer because in some cases only the selling price to licensees is known. Volume of sales is a more realistic indicator of trends in consumption, but as a measure of personal consumption by Canadians it is subject to the same limitations as value sales and includes, in addition, purchases by non-residents.

Government revenue specifically related to alcoholic beverages and details of sales by value and volume for each province are given in Table 17.22. *The control and sale of alcoholic beverages in Canada* (Statistics Canada 63-202) shows further detail as well as volume figures

of production and warehousing transactions, the value and volume of imports and exports, and the assets and liabilities of provincial liquor commissions.

### 17.4 Co-operatives

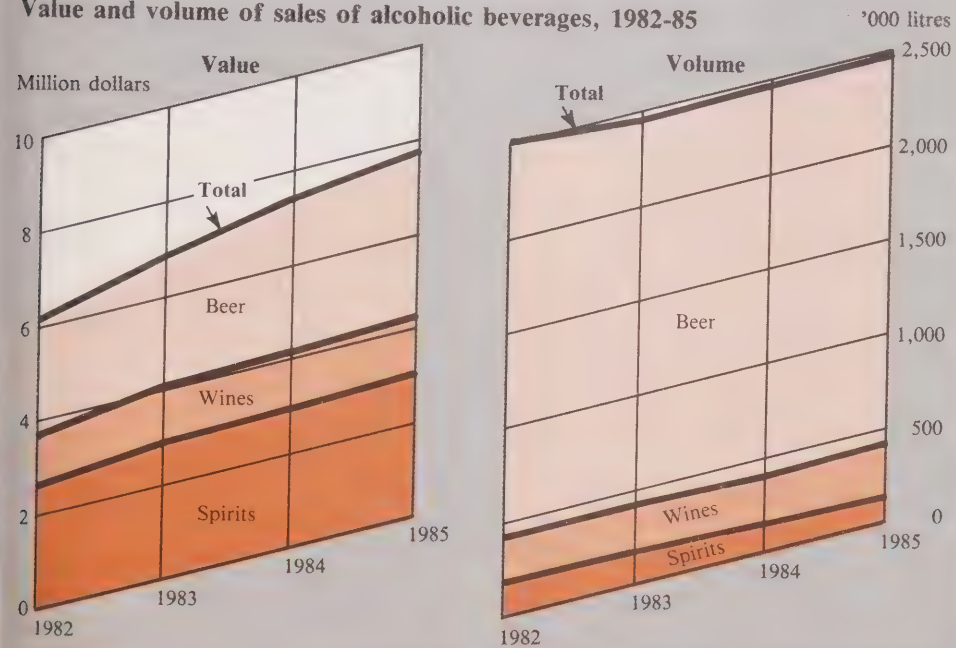
A co-operative is an incorporated, non-profit business organized on a voluntary basis to meet the economic, social or cultural needs of its members. All members share control of and responsibility for the co-operative, and benefits are returned to the members in proportion to their use of the services.

The co-operative movement in Canada started among the pioneer farmers. Over the decades the co-operative method spread to embrace a great many types of economic and social activities involving farmers, consumers, tradesmen, fishermen and others.

**Co-operatives in 1985.** Total revenues of Canadian co-operatives amounted to \$14.3 billion for 1985, down 4% or \$630 million from 1984.

Farm product marketings declined about 7% or \$600 million to the \$7.8 billion level as western grain marketings fell more than \$700

Chart 17.3  
Value and volume of sales of alcoholic beverages, 1982-85





million or 18% due to severe drought in various parts of the Prairie provinces. Hog marketings dropped 10%, and oilseeds 2%, after their spectacular rise in the previous year. Fruit, poultry, egg and forest product marketings registered increases of 10% or more.

Consumer and supply sales rose about \$150 million or 3% to \$5.2 billion. Consumer goods sales increased 4% while building materials declined by the same percentage. Farm machinery sales edged up 1% after three years of decline.

Service revenues shrank 6% to approximately \$820 million. The decline in western grain handling revenues outweighed all other service results including an 8% gain in revenues for the service group of co-operatives which includes housing, medical insurance, rural electric and natural gas co-operatives.

Co-operative assets lost their gains of the prior year when they eased down approximately 4.5% to \$5.8 billion, with the large decline in western grain inventories and related receivables, the second year of such decline in a row. Members' equity, although virtually unchanged in absolute numbers, as a percentage of total assets rose a strong four points to 40 as short-term liabilities fell in tandem with the above-mentioned inventories and receivables.

Co-operative membership edged up one or two percentage points, to approximately 2.9 million persons.

**Co-operatives in 1984.** Co-operative business volume rose about 8% in 1984, close to the \$15 billion level, after a stagnant performance in the previous year, and about matching the growth in Gross National Product (5% in constant dollars).

The overall gain in dollar terms amounted to \$1,075 million with marketings accounting for two-thirds, followed by consumer and supply sales, service revenue and other income with gains of \$239 million, \$85 million and \$41 million respectively. Oilseed marketings was the biggest single contributor, with a gain of \$330 million, followed by dairy products, grains, and fertilizer and chemicals. On a proportional basis oilseeds was the leader, with a towering gain of 58%, followed by vegetables, other supplies and other income with gains of 37%, 29% and 23% respectively. Fish and cattle marketings fell 9% and 5%, respectively in the year, while dry goods and home hardware, seeds, machinery, vehicles and parts, and building materials all registered declines of 4% or less.

The rise in business volume was fairly well balanced across the country, ranging from

about 6.5% in the Atlantic area to 10.0% in Ontario.

Assets of the co-operatives rose \$233 million, or 4%, despite a decline in western grain inventories.

The number of reporting co-operatives rose about 10% in the year to 3,316 with a big surge in the service group due to the inclusion of recreational associations for the first time. Membership statistics showed a rise of 26,000 for the year on a combination of circumstances; mainly the inclusion of recreational co-operatives. Other significant items were a rise in both student supply membership in Quebec, and other consumer co-operatives in British Columbia, offset by a downsizing reorganization of a large supply co-operative in the West, and the unavailability of some service association reports in Quebec. Without the inclusion of recreational associations, however, reporting associations and membership would have been almost unchanged in the year.

## 17.5 Tourism

Tourism — the business of attracting visitors and catering to their needs and expectations — is one of Canada's major economic sectors. It is a \$20 billion-a-year industry constituting 4.4% of Canada's Gross National Product, and involves more than 100,000 businesses, most of them small and Canadian-owned. About 600,000 people are directly employed in the industry to look after the needs of visitors.

Foreign visitors spend about \$5 billion annually on tourism products and services, making the tourist industry one of Canada's top six earners of foreign exchange.

Canada's tourism businesses include almost 300,000 hotel and motel rooms, nearly 40,000 restaurants and food-service facilities, and about 4,500 travel agencies. It's also a kaleidoscope of facilities and attractions — festivals and special events, shopping and entertainment centres, museums, scenic parks, marinas and coast-to-coast transportation system.

Although many government departments and agencies are involved to some extent in various aspects of tourism, the main co-ordinating and promoting agency — the focal point of these endeavours — is Tourism Canada, a branch of the federal Department of Regional Industrial Expansion (DRIE). Tourism Canada's objective is to ensure that its activities contribute to the development of an internationally competitive tourist industry and lead to increased investment



in the industry, increased government revenues and a reduction in the tourist trade deficit.

Tourism Canada works closely with the provinces and territories and with the private sector. In 1985, the federal government launched a national consultative process on the future of tourism in Canada and this process led to the signing of a major accord with the other orders of government on roles and responsibilities in respect of the tourism industry. Numerous joint endeavours, involving public sector/private sector co-operation, have been initiated over the past few years.

From Tourism Canada headquarters in Ottawa, programs are carried out which concern the country as a whole, such as international advertising campaigns and joint promotional ventures that are designed to assist different sectors of the industry. Assistance at the local level is available through the regional offices of DRIE, located in every province and territory. Each office has tourism specialists who act as contact points for provincial and industry officials providing information on tourism incentive and marketing programs, consultation on industry concerns and liaison with their counterparts in Ottawa. Outside Canada, the responsibility for delivering the tourism program rests with the federal Department of External Affairs. Working in co-operation with Tourism Canada, External Affairs operates from offices in more than 100 embassies and consulates throughout the world.

Dollar figures demonstrate the economic importance of the industry in Canada. Tourism revenues totalled \$19.9 billion in 1985, up from \$17.8 billion in 1984. Of the 1985 total, Canadian travellers contributed \$15.0 billion, US visitors, \$3.7 billion, and offshore visitors, \$1.3 billion. Total Canadian spending on travel was \$22.1 billion, including \$4.2 billion in the United States and \$3.0 billion offshore.

The number of world visitors who arrived in Canada in 1985 to spend one night or more totalled 13.2 million. Included were 11.6 million from the United States (up 10% from 1982), 319,000 from the United Kingdom, 161,000 from the Federal Republic of Germany, 148,000 from Japan, and 108,000 from France.

Canada's deficit on its travel account (the difference between the amount visitors spend in Canada and the amount Canadians spend while travelling abroad) totalled \$2.14 billion, compared with \$2.13 billion in 1984.

Preliminary figures for 1986 indicate a banner year for tourism in Canada; the country's best

year since 1967. For the first eight months of 1986, long-term visits from the US were up 17% from the same period in 1985 and overseas visits were up 24%. Over 12.2 million foreign visitors had already come to Canada by the end of August, lured by Expo '86, a favourable currency exchange rate, and a strong federal government marketing campaign.

## 17.6 Consumer affairs legislation

Consumer and Corporate Affairs Canada administers federal legislation and policies affecting business, and demonstrates that a competitive marketplace can benefit consumers, business people and investors. Four bureaus share responsibility for achieving the department's marketplace objectives.

**The consumer affairs bureau** co-ordinates government activities in the field of consumer affairs through four branches: consumer services, legal metrology, consumer products, and product safety. The corporate affairs bureau administers legislation and regulations pertaining to corporations; its branches are responsible for corporations, bankruptcy and securities. The bureau also administers laws pertaining to patents, copyright, timber marks, industrial design, and trade marks, with a branch responsible for each of these fields. The bureau of competition policy has branches specializing in resources, manufacturing, services and marketing practices; its economic analysis and policy evaluation branch has responsibilities in federal-provincial relations, legislative development, research inquiries and international relations.

The department maintains regional offices in Vancouver, Winnipeg, Toronto, Montreal and Halifax, and district and local offices in other cities. These offices ensure that laws and regulations administered by the department, with the exception of the statutes administered by the corporations branch, are uniformly applied and interpreted in all parts of the country. The field force includes regional consumer consultants, inspectors and specialists in the fields of bankruptcy and marketing practices.

**Competition legislation.** Bill C-91, an act to establish the Competition Tribunal and to amend the Combines Investigation Act and other acts in consequence thereof came into force on June 19, 1986 except for certain provisions related to prenotification of mergers which are expected to be proclaimed in 1987 when the relevant regulations are promulgated by Cabinet.

The Bureau of Competition Policy promotes competition and efficiency in the Canadian economy through enforcement and administration of the Competition Act, ensuring in the process that consumers, retailers, distributors and producers are protected from anti-competitive practices, and that success in the marketplace is determined by economic efficiency and fairness. The stated objectives of the act are to promote economic efficiency and the international competitiveness of Canadian business, to ensure that small and medium-sized businesses have an equitable opportunity to participate in the economy and to provide consumers with competitive prices and product choices. Moreover, if, as a result of competition law, markets work better, then there is less need for direct government intervention.

The act contains criminal law prohibitions against agreements (conspiracies) to lessen competition, anti-competitive behaviour such as price maintenance, predatory pricing, price discrimination, and misleading advertising and deceptive marketing practices such as double ticketing and pyramid selling. In addition, certain trade practices described in Part VII of the act including merger, abuse of dominant position, refusal to deal, tied selling, and market restriction, while not prohibited, are subject to civil review by the Competition Tribunal which, for the purposes of this part of the act, is a court of record. The director of investigation and research, who is also the assistant deputy minister for the Bureau of Competition Policy, is responsible for investigating matters falling within the ambit of the act, and he is the only person who may apply to the Competition Tribunal for a remedial order in respect of the civil matters under the act. However, private parties may apply to the Tribunal to register voluntary specialization agreements justified on efficiency grounds.

Part VIII of the Competition Act requires parties to large merger proposals to notify the director, provide certain information and wait from 7 to 21 days before completing the merger.

Since 1976 the director has been empowered to make representations in respect of competition before federally regulated boards, commissions and tribunals. The director may also make representations before provincial regulatory bodies with the consent of the board, commission or tribunal in question. By arguing the case for competition and its related efficiency gains, the director seeks to ensure that the benefits of competition are represented and considered in the regulatory decision-making process.

**Food.** Consumer and Corporate Affairs Canada is responsible for regulation on behalf of the consumer of the quality, quantity, composition, substitution, packaging, labelling and advertising of food products, by the administration of portions of the Food and Drugs Act, the Canada Agricultural Products Standards Act and the Fish Inspection Act.

**Measurement.** The Weights and Measures Act prescribes the legal standards of weight and measure for use in Canada; it also ensures control of the types of all weighing and measuring devices used for commercial purposes, and provides for in-use surveillance directed toward minimizing inaccurate measurement. The Electricity and Gas Inspectors Act provides similar standards for fair measurement of these two forms of energy at both levels.

**Appliance labelling, energy consumption.** Refrigerators, freezers, washers, dishwashers, clothes dryers and ranges sold in Canada must show an Energuide label. This label indicates the kilowatt hours a month of energy consumption of each model. This energy labelling requirement is regulated under the Consumer Packaging and Labelling Act.

**Corporations branch** of Consumer and Corporate Affairs Canada administers the Canada Business Corporations Act, the Canada Corporations Act, the Canada Co-operatives Association Act and the Boards of Trade Act. The branch has a statutory duty to issue formal documents in connection with corporations created under other federal acts such as the Loan Companies Act, Trust Companies Act, the Canadian and British Insurance Companies Act, and the Railway Act.

All federal business corporations other than those carrying on business as financial intermediaries must be incorporated under the Canada Business Corporations Act. Federal non-profit corporations continue to be incorporated under Part II of the Canada Corporations Act until a proposed new Non-profit Corporations Act is passed by Parliament.

## 17.7 Government aid to business

Government programs are available to help in several stages of developing a business by providing financing, information or technical guidance.

**Start-up stage.** The success of a business operation can be influenced by the initial research and investigation. Agencies such as the Federal Business Development Bank offer training and

counselling for new entrepreneurs. Statistics Canada can provide data on potential business localities. The Department of Regional Industrial Expansion (DRIE) may provide information through its small business secretariat or its business information centres in 10 major cities across Canada.

**Financing.** One of the most common problems businesses face is obtaining adequate debt and equity financing, whether for start-up or expansion. The main types of financial assistance offered by the federal government are loan guarantees and insurance, loans, grants and tax measures. The Federal Business Development Bank also offers equity financing through its investment banking department.

**Marketing.** Product marketing involves identifying, investigating, and developing both domestic and export markets. Whether a new business is being started or an existing product line is being expanded, a thorough marketing plan can better its chances of success. Several sources of information are available from the federal government to assist with market investigation. Export assistance is available through the Department of External Affairs to help finance the sale of products in export markets and to aid in market investigation and product promotion.

**Research and development.** Financial support for industrial research, innovation and product development is offered by the federal government to specific industrial sectors. Up-to-date information is available on new inventions and developments. Various government testing and laboratory facilities provide support services to the business community.

**Expansion.** Some federal programs may be of assistance in modernizing a firm or making

major adjustments because of changing market conditions. For example, loan guarantees and other financing support are available for modernization in slow-growth areas. Tax concessions are provided in other instances.

**Developing the work force.** To function efficiently a business needs good workers with the right skills. A wide range of federal services and programs helps employers obtain employees with the skills necessary to meet current and anticipated future needs. This includes assistance for occupational training and support of industry through the development of workers. Various programs stress the retraining of workers displaced by technological change, support for training new workers and the scarcity of high-level skills that are critical for future industrial development. Departments and agencies including the employment and immigration commission (CEIC) and Labour Canada provide assistance in recruiting, collective bargaining, employee relations and management development.

**ABC handbook.** Occasionally federal and provincial programs may either overlap or be complementary to one another. A review of all the assistance programs oriented to a specific business sector will lead to the most beneficial results for an enterprise.

The Federal Business Development Bank publishes an ABC handbook, *Assistance to business in Canada*, as a part of the federal government commitment to support the Canadian business community. The third edition of the series published in 1984 has 10 volumes. Each one lists programs by department or agency and adds a supplement on the programs of a particular province or provincial and adjacent territorial region.

## Sources

- 17.1 - 17.3.2 Business and Trade Statistics, Statistics Canada.
- 17.3.3 Public Institutions Division, Statistics Canada.
- 17.4 Co-operatives Section, Agriculture Canada.
- 17.5 Information Services, Tourism Canada.
- 17.6 Communications Branch, Consumer and Corporate Affairs Canada.
- 17.7 Public Affairs, Federal Business Development Bank.



# TABLES

- .. not available
- ... not appropriate or not applicable
- nil or zero
- too small to be expressed
- e estimate
- p preliminary
- r revised
- certain tables may not add due to rounding

## 17.1 Retail trade, by kind of business and by province, percentage and percentage distribution, 1982-85

Kind of business and province	1982 \$'000,000	1983 \$'000,000	1984 \$'000,000	1985 \$'000,000	Percentage change 1984-85	Percentage distribution 1985
Kind of business						
Combination stores (groceries and meat)	19,906.2	21,027.4	22,341.4	23,776.7	+ 6.4	18.4
Grocery, confectionery and sundries stores	4,938.4	5,209.7	5,703.1	6,154.8	+ 7.9	4.8
All other food stores	1,945.9	2,048.8	2,144.6	2,325.6	+ 8.4	1.8
Department stores	10,208.1	10,930.5	11,384.9	12,038.6	+ 5.7	9.3
General merchandise stores	2,080.1	2,312.0	2,395.1	2,698.9	+ 12.7	2.1
General stores	1,898.4	1,909.8	1,890.9	1,982.7	+ 4.9	1.5
Variety stores	1,071.3	1,129.9	1,207.0	1,266.9	+ 5.0	1.0
Motor vehicle dealers	14,413.0	17,198.0	20,846.5	26,026.6	+ 24.8	20.1
Used car dealers	461.5	501.1	559.0	654.9	+ 17.2	0.5
Service stations	8,728.5	8,949.5	9,732.5	11,100.7	+ 14.1	8.6
Garages	1,376.2	1,345.8	1,580.9	1,484.2	- 6.1	1.1
Automotive parts and accessories stores	2,175.0	2,492.9	2,606.2	2,801.8	+ 7.5	2.2
Men's clothing stores	1,113.7	1,249.8	1,323.5	1,324.1	--	1.0
Women's clothing stores	1,913.0	2,137.0	2,396.4	2,777.2	+ 15.9	2.1
Family clothing stores	1,275.1	1,487.1	1,575.4	1,867.4	+ 18.5	1.4
Specialty shoe stores	135.2	147.4	162.8	212.0	+ 30.2	0.2
Family shoe stores	882.4	967.8	1,008.3	1,075.8	+ 6.7	0.8
Hardware stores	887.6	984.0	1,046.5	1,157.6	+ 10.6	0.9
Household furniture stores	1,209.5	1,551.0	1,698.7	1,542.2	- 9.2	1.2
Household appliance stores	381.9	487.4	453.0	527.4	+ 16.4	0.4
Furniture, TV, radio and appliance stores	510.0	669.8	831.5	1,144.9	+ 37.7	0.9
Pharmacies, patent medicine and cosmetics stores	3,913.7	4,294.0	4,727.2	5,356.6	+ 13.3	4.1
Book and stationery stores	465.9	513.8	565.3	715.4	+ 26.6	0.6
Florists	380.6	400.7	452.8	471.5	+ 4.1	0.4
Jewellery stores	822.5	837.9	867.1	932.0	+ 7.5	0.7
Sporting goods and accessories stores	1,289.9	1,401.1	1,640.5	1,868.3	+ 13.9	1.4
Personal accessories stores	1,378.5	1,416.6	1,559.3	1,719.4	+ 10.3	1.3
All other stores	11,876.6	12,642.2	13,379.8	14,442.3	+ 7.9	11.2
Total	97,638.5	106,243.0	116,079.9	129,446.3	+ 11.5	100.0
Province or territory						
Newfoundland	1,761.2	1,970.5	2,071.1	2,254.1	+ 8.8	1.7
Prince Edward Island	412.4	471.7	520.7	547.5	+ 5.1	0.4
Nova Scotia	3,097.8	3,533.8	4,048.0	4,579.6	+ 13.1	3.5
New Brunswick	2,448.6	2,719.3	2,927.4	3,171.5	+ 8.3	2.5
Quebec	23,496.8	25,783.8	29,005.9	31,782.3	+ 9.6	24.6
Ontario	35,543.3	39,446.1	43,465.7	49,003.6	+ 12.7	37.9
Manitoba	3,830.0	4,099.9	4,513.7	5,200.8	+ 15.2	4.0
Saskatchewan	4,042.1	4,357.1	4,354.4	4,704.0	+ 8.0	3.6
Alberta	10,941.3	11,303.5	11,833.4	13,523.5	+ 14.3	10.4
British Columbia	11,766.2	12,256.9	13,004.6	14,303.6	+ 10.0	11.1
Yukon and Northwest Territories	298.8	300.3	334.8	375.8	+ 12.2	0.3

## 17.2 Sales of chain and independent stores, by kind of business, 1982-85

Kind of business	Chain stores			Independent stores		
	1982 \$'000,000	1983 \$'000,000	Per- centage change 1982-83	1982 \$'000,000	1983 \$'000,000	Per- centage change 1982-83
Combination stores (groceries and meat)	13,239.6	13,621.8	+ 2.9	6,666.6	7,405.6	+ 11.1
Grocery, confectionery and sundries stores	1,340.5	1,497.7	+ 11.7	3,597.8	3,712.0	+ 3.2
All other food stores	138.4	179.4	+ 29.6	1,807.6	1,869.4	+ 3.4
Department stores	10,208.1	10,930.5	+ 7.1	...	...	...
General merchandise stores	1,677.2	1,825.4	+ 8.8	402.8	486.6	+ 20.8
General stores	733.5	752.5	+ 2.6	1,164.9	1,157.3	- 0.7
Variety stores	882.4	943.3	+ 6.9	189.0	186.6	- 1.3
Motor vehicle dealers	133.6	152.0	+ 13.8	14,279.4	17,046.0	+ 19.4
Used car dealers	—	—	—	461.5	501.1	+ 8.6
Service stations	1,784.3	1,808.9	+ 1.4	6,944.1	7,140.6	+ 2.8
Garages	—	—	—	1,376.2	1,345.8	- 2.2
Automotive parts and accessories stores	130.3	155.3	+ 19.2	2,044.7	2,337.6	+ 14.3



## 17.2 Sales of chain and independent stores, by kind of business, 1982-85 (concluded)

Kind of business	Chain stores			Independent stores		
	1982 \$'000,000	1983 \$'000,000	Per- centage change 1982-83	1982 \$'000,000	1983 \$'000,000	Per- centage change 1982-83
Men's clothing stores	499.7	651.8	+ 30.4	614.1	598.0	-2.6
Women's clothing stores	1,122.3	1,318.2	+ 17.5	790.8	818.8	+ 3.5
Family clothing stores	673.1	891.2	+ 32.4	602.1	595.9	-1.0
Specialty shoe stores	57.9	65.8	+ 13.6	77.3	81.6	+ 5.6
Family shoe stores	634.1	708.7	+ 11.8	248.3	259.1	+ 4.3
Hardware stores	1	1	1	1	1	1
Household furniture stores	250.5	402.0	+ 60.5	959.0	1,149.0	+ 19.8
Household appliance stores	1	1	1	1	1	1
Furniture, TV, radio and appliance stores	168.6	242.8	+ 44.0	341.4	427.0	+ 25.1
Pharmacies, patent medicine and cosmetics stores	1,052.5	1,192.7	+ 13.3	2,861.2	3,101.3	+ 8.4
Book and stationery stores	216.3	270.9	+ 25.2	249.6	242.9	-2.7
Florists	15.5	17.6	+ 13.5	365.1	383.1	+ 4.9
Jewellery stores	402.8	441.2	+ 9.5	419.7	396.7	-5.5
Sporting goods and accessories stores	146.6	188.6	+ 28.6	1,143.3	1,212.4	+ 6.0
Personal accessories stores	422.7	479.9	+ 13.5	955.8	936.7	-2.0
All other stores	6,639.2	7,212.2	+ 8.6	5,237.3	5,430.0	+ 3.7
Total	42,750.1	46,139.5	+ 7.9	54,888.4	60,103.4	+ 9.5

Kind of business	Chain stores			Independent stores		
	1984 \$'000,000	1985 \$'000,000	Per- centage change 1984-85	1984 \$'000,000	1985 \$'000,000	Per- centage change 1984-85
Combination stores (groceries and meat)	14,420.9	15,326.4	+ 6.3	7,920.4	8,450.3	+ 6.7
Grocery, confectionery and sundries stores	1,704.8	1,868.3	+ 9.6	3,998.4	4,286.4	+ 7.2
All other food stores	197.9	224.0	+ 13.2	1,946.6	2,101.6	+ 8.0
Department stores	11,384.9	12,038.6	+ 5.7	...	...	...
General merchandise stores	1,904.9	2,123.8	+ 11.5	490.2	575.0	+ 17.3
General stores	782.7	829.6	+ 6.0	1,108.3	1,153.1	+ 4.0
Variety stores	1,026.4	1,105.3	+ 7.7	180.6	161.6	-10.5
Motor vehicle dealers	223.0	380.7	+ 70.7	20,623.5	25,645.9	+ 24.4
Used car dealers	—	—	—	559.0	654.9	+ 17.2
Service stations	2,151.6	2,826.3	+ 31.4	7,580.9	8,274.4	+ 9.1
Garages	—	—	—	1,580.9	1,484.2	-6.1
Automotive parts and accessories stores	214.4	215.1	+ 0.3	2,391.8	2,586.7	+ 8.1
Men's clothing stores	720.7	705.2	-2.2	602.8	618.9	+ 2.7
Women's clothing stores	1,525.3	1,796.7	+ 17.8	871.0	980.5	+ 12.6
Family clothing stores	1,003.1	1,252.1	+ 24.8	572.3	615.3	+ 7.5
Specialty shoe stores	75.6	111.8	+ 47.9	87.1	100.2	+ 15.0
Family shoe stores	751.2	805.1	+ 7.2	257.1	270.7	+ 5.3
Hardware stores	1	199.5	1	1	958.1	1
Household furniture stores	517.7	426.6	-17.6	1,180.9	1,115.6	-5.5
Household appliance stores	1	57.2	1	1	470.2	1
Furniture, TV, radio and appliance stores	357.9	573.8	+ 60.3	473.6	571.1	+ 20.6
Pharmacies, patent medicine and cosmetics stores	1,374.1	1,559.9	+ 13.5	3,353.2	3,796.7	+ 13.2
Book and stationery stores	316.4	414.4	+ 31.0	248.9	301.0	+ 20.9
Florists	34.1	21.7	-36.4	418.8	449.8	+ 7.4
Jewellery stores	454.7	478.2	+ 5.2	412.4	453.8	+ 10.0
Sporting goods and accessories stores	238.2	295.5	+ 24.1	1,402.3	1,572.8	+ 12.2
Personal accessories stores	591.7	661.7	+ 11.8	967.7	1,057.8	+ 9.3
All other stores	7,578.3	8,010.5	+ 5.7	5,801.4	6,431.8	+ 10.9
Total	49,794.4	54,308.0	+ 9.1	66,285.5	75,138.3	+ 13.4

1 Confidential.

## 17.3 Percentage market share of chain stores, by kind of business, 1982-85

Kind of business	1982	1983	1984	1985
Combination stores (groceries and meat)	66.5	64.8	64.5	64.5
Grocery, confectionery and sundries stores	27.1	28.7	29.9	30.4
All other food stores	7.1	8.8	9.2	9.6
Department stores	100.0	100.0	100.0	100.0
General merchandise stores	80.6	79.0	79.5	78.7
General stores	38.6	39.4	41.4	41.8
Variety stores	82.4	83.5	85.0	87.2
Motor vehicle dealers	0.9	0.9	1.1	1.5
Used car dealers	—	—	—	—

**17.3 Percentage market share of chain stores, by kind of business, 1982-85 (concluded)**

Kind of business	1982	1983	1984	1985
Service stations	20.4	20.2	22.1	25.5
Garages	—	—	—	—
Automotive parts and accessories stores	6.0	6.2	8.2	7.7
Men's clothing stores	44.9	52.2	54.5	53.3
Women's clothing stores	58.7	61.7	63.6	64.7
Family clothing stores	52.8	59.9	63.7	67.1
Specialty shoe stores	42.8	44.6	46.4	52.7
Family shoe stores	71.9	73.2	74.5	74.8
Hardware stores	1	1	1	17.2
Household furniture stores	20.7	25.9	30.5	27.7
Household appliance stores	1	1	1	10.8
Furniture, TV, radio and appliance stores	33.1	36.2	43.0	50.1
Pharmacies, patent medicine and cosmetics stores	26.9	27.8	29.1	29.1
Book and stationery stores	46.4	52.7	56.0	57.9
Florists	4.1	4.4	7.5	4.6
Jewellery stores	49.0	52.7	52.4	51.3
Sporting goods and accessories stores	11.4	13.5	14.5	15.8
Personal accessories stores	30.7	33.9	37.9	38.5
All other stores	55.9	57.0	56.6	55.5
Total, all chain stores	43.8	43.4	42.9	42.0

<sup>1</sup> Confidential.**17.4 Department store sales by department, 1982-85**

Department	1982 \$'000,000	1983 \$'000,000	1984 \$'000,000	1985 \$'000,000	Percentage change 1984-85
Women's, misses' and children's clothing					
Women's and misses' dresses, housedresses, aprons and uniforms	192.0	184.3	191.2	215.3	+ 12.6
Women's and misses' coats and suits	173.8	181.5	202.5	212.2	+ 4.8
Women's and misses' sportswear	543.0	606.6	654.2	724.6	+ 10.8
Furs	34.9	38.2	40.4	46.3	+ 14.6
Infants' and children's wear and nursery equipment	275.5	279.8	292.0	307.3	+ 5.2
Girls' and teenage girls' wear	194.5	186.1	199.9	216.5	+ 8.3
Lingerie and women's sleepwear	211.0	225.5	239.9	240.2	+ 0.1
Intimate apparel	114.6	123.1	130.4	138.9	+ 6.5
Millinery	20.0	21.2	22.6	21.8	-3.5
Women's and girls' hosiery	121.5	125.8	126.5	131.3	+ 3.8
Women's and girls' gloves, mitts and accessories	172.8	189.3	199.6	217.7	+ 9.1
Women's, misses' and children's footwear	272.3	284.1	301.8	317.4	+ 5.2
Total, women's, misses' and children's clothing	2,325.9	2,445.5	2,601.0	2,789.5	+ 7.2
Men's and boys' clothing					
Men's clothing	419.4	431.6	474.1	506.4	+ 6.8
Men's furnishings	482.0	534.0	574.7	627.6	+ 9.2
Boys' clothing and furnishings	142.9	151.4	161.3	175.9	+ 9.1
Men's and boys' footwear	178.0	190.1	195.4	209.8	+ 7.4
Total, men's and boys' clothing	1,222.3	1,307.1	1,405.5	1,519.7	+ 8.1
Food and kindred products	682.6	695.0	730.0	740.1	+ 1.4
Toiletries, cosmetics and drugs	562.5	620.8	653.0	720.6	+ 10.4
Photographic equipment and supplies	162.7	162.8	156.7	148.7	-5.1
Piece goods	55.3	52.6	47.2	42.9	-9.1
Linens and domestics	300.7	335.2	346.8	381.2	+ 9.9
Smallwares and notions	102.0	103.9	101.2	105.3	+ 4.1
China and glassware	148.5	153.7	157.1	162.5	+ 3.4
Floor coverings	138.4	149.7	144.6	162.0	+ 12.0
Draperies, curtains and furniture covers	168.7	179.1	178.9	177.9	-0.6
Lamps, pictures, mirrors and all other home furnishings	105.8	108.3	105.4	100.4	-4.7
Furniture	460.3	522.1	532.5	581.1	+ 9.1
Major appliances	432.8	517.2	538.5	575.8	+ 6.9
Television, radio and music	433.2	511.7	520.2	515.0	-1.0
Housewares and small electrical appliances	417.7	437.2	436.7	444.4	+ 1.8
Hardware, paints and wallpaper	316.5	309.1	320.5	395.5	+ 23.4
Plumbing, heating and building materials	117.3	134.3	125.9	115.4	-8.3
Jewellery	254.3	246.0	265.5	301.2	+ 13.4
Toys and games	246.6	303.1	333.4	350.6	+ 5.2
Sporting goods and luggage	334.6	307.3	312.0	323.2	+ 3.6

### 17.4 Department store sales by department, 1982-85 (concluded)

Department	1982 \$'000,000	1983 \$'000,000	1984 \$'000,000	1985 \$'000,000	Percentage change 1984-85
Stationery, books and magazines	312.8	358.7	374.2	376.7	+ 0.7
Gasoline, oil, auto accessories, repairs and supplies	212.1	212.4	205.9	185.6	-9.9
Receipts from meals and lunches	250.8	259.2	265.2	267.1	+ 0.7
Receipts from repairs and services	97.8	122.5	129.1	144.9	+ 12.2
All other departments	345.9	375.8	397.9	411.0	+ 3.3
Total, all departments	10,208.1	10,930.5	11,384.9	12,038.6	+ 5.7

### 17.5 Retail sales of new motor vehicles, 1976-85

Year	Passenger cars		Trucks and buses		Total	
	No.	\$'000	No.	\$'000	No.	\$'000
1976	946,488	5,241,970	344,975	2,512,118	1,291,463	7,754,088
1977	991,398	5,795,552	353,561	2,750,341	1,344,959	8,545,893
1978	988,890	6,383,020	377,654	3,266,505	1,366,544	9,649,525
1979	1,003,008	7,344,174	393,394	4,137,808	1,396,402	11,481,982
1980	932,060	7,517,901	331,747	3,860,703	1,263,807	11,378,604
1981	904,195	8,272,529	286,687	3,645,866	1,190,882	11,918,395
1982	713,481	7,037,564	207,421	2,786,407	920,902	9,823,971
1983	843,318	9,041,376	237,770	3,154,950	1,081,088	12,196,326
1984	971,210	11,138,931	312,292	4,540,829	1,283,502	15,679,760
1985	1,137,216	13,707,637	393,194	6,182,482	1,530,410	19,890,119

### 17.6 Retail sales of new motor vehicles by type and source, 1976-85

Year	Passenger cars		Trucks and buses		Total	
	Canadian/US	Overseas	Canadian/US	Overseas	Canadian/US	Overseas
	Number					
976	793,201	153,287	331,027	13,948	1,124,228	167,235
977	797,752	193,646	337,914	15,647	1,135,666	209,293
978	815,994	172,896	364,241	13,413	1,180,235	186,309
979	863,554	139,454	381,562	11,832	1,245,116	151,286
980	740,767	191,293	310,273	21,474	1,051,040	212,767
981	646,942	257,253	250,775	35,912	897,717	293,165
982	489,435	224,046	166,986	40,435	656,421	264,481
983	625,088	218,230	192,609	45,161	817,697	263,391
984	724,932	246,278	273,604	38,688	998,536	284,966
985	794,965	342,251	344,871	48,323	1,139,836	390,574
	Thousand dollars					
976	4,522,723	719,247	2,447,109	65,009	6,969,832	784,256
977	4,864,157	931,395	2,673,077	77,264	7,537,234	1,008,659
978	5,381,914	1,001,106	3,188,109	78,396	8,570,023	1,079,502
979	6,355,127	989,047	4,053,773	84,035	10,408,900	1,073,082
980	6,069,407	1,448,494	3,698,247	162,456	9,767,654	1,610,950
981	6,033,437	2,239,092	3,334,406	311,460	9,367,843	2,544,617
982	4,856,340	2,181,224	2,423,014	363,393	7,279,354	2,550,552
983	6,700,490	2,340,886	2,728,842	426,108	9,429,332	2,766,994
984	8,176,591	2,962,340	4,136,482	404,347	12,313,073	3,366,687
985	9,545,156	4,162,481	5,641,518	540,964	15,186,674	4,703,445

**17.7 Retail sales in campus book stores, academic years, 1981-82 to 1984-85**

Province and items sold	1981-82 \$'000	1982-83 \$'000	1983-84 \$'000	1984-85 \$'000	Percentage change 1983-84 to 1984-85
<b>Province</b>					
Atlantic region	9,858	11,844	14,427	16,345	+13.3
Nova Scotia	4,392	5,419	6,491	7,456	+14.9
New Brunswick	3,004	3,531	4,572	4,976	+8.8
Quebec	31,144	34,780	38,960	36,640	-6.0
Ontario	68,066	80,054	90,161	104,686	+16.1
Manitoba	7,510	9,186	10,013	10,996	+9.8
Saskatchewan	5,990	7,818	8,897	9,841	+10.6
Alberta	17,371	21,527	24,982	29,302	+17.3
British Columbia	17,718	20,105	24,321	27,977	+15.0
<b>Total</b>	<b>157,658</b>	<b>185,314</b>	<b>211,760</b>	<b>235,788</b>	<b>+11.3</b>
<b>Items sold</b>					
Textbooks <sup>1</sup>	102,456	122,929	141,667	153,734	+8.5
Other books	14,075	16,640	18,000	19,806	+10.0
Stationery and supplies	24,151	26,789	29,223	34,425	+17.8
Miscellaneous <sup>2</sup>	16,976	18,956	22,870	27,823	+21.7

<sup>1</sup> Includes all professional and educational books, hard covers and paperbacks.<sup>2</sup> Includes newspapers, magazines, periodicals and sundries.**17.8 Vending machine operators, 1972-84**

Year	Firms No.	Annual change %	Machines <sup>1</sup> No.	Annual change %	Sales \$'000	Annual change %
1972 <sup>2</sup>	692	-0.7	106,758	+9.0	178,909	+10.3
1973	648	-6.4	104,253	-2.3	207,081	+15.7
1974	667	+2.9	106,278	+1.9	227,445	+9.8
1975	627	-6.0	110,287	+3.8	249,960	+9.9
1976	612	-2.4	104,548	-5.2	269,387	+7.8
1977	622	+1.6	105,587	+1.0	286,478	+6.3
1978	630	+1.3	112,531	+6.6	296,927	+3.6
1979	585	-7.1	116,638	+3.6	329,250	+10.9
1980	584	-0.2	119,316	+2.3	371,781	+12.9
1981	643	+10.1	122,121	+2.4	380,121	+2.2
1982	701	+9.0	122,598	+0.4	363,312	-4.4
1983	681	-2.9	122,683	+0.1	340,933	-6.3
1984	714	+4.8	141,476	+15.3	379,028	+11.2

<sup>1</sup> Maximum during the year; ovens, coin and bill changers are excluded.<sup>2</sup> Beginning 1972, data of small operators excluded.**17.9 Sales through vending machines, distribution and percentage change, by selected type of machine, 1981-84**

Type of machine	1981		1982		Percentage change 1981-82
	\$'000	%	\$'000	%	
Cigarettes	142,244.2	37.4	135,578.4	37.3	-4.
Beverages					
Coffee	69,560.7	18.3	64,995.2	17.9	-6.
Soft drinks					
- Can or bottle	43,163.3	11.4	50,049.4	13.8	+16.
- Disposable cups	20,058.2	5.3	15,890.0	4.4	-20.
Packaged milk	12,301.1	3.2	9,793.7	2.7	-20.
Other beverages	9,321.1	2.5	8,815.7	2.4	-5.
Confections and foods					
Bulk confectionery	4,012.5	1.1	2,946.8	0.8	-26.
Packaged confectionery	34,563.5	9.1	33,551.0	9.2	-2
Pastries	9,358.8	2.5	7,681.3	2.1	-17
Snack food	5,229.9	1.4	7,687.9	2.1	+47
Hot canned foods and soups	4,324.0	1.1	4,315.7	1.2	-0
Ice cream	1,901.9	0.5	1,047.1	0.3	-44
Fresh food (casseroles, hot dogs, sandwiches, salads)	23,338.1	6.1	20,406.6	5.6	-12
Other vending machines for food	367.5	0.1	282.8	0.1	-23
All other food and non-food	375.9	0.1	270.9	0.1	-27
<b>Total</b>	<b>380,120.7</b>	<b>100.0</b>	<b>363,312.4</b>	<b>100.0</b>	<b>-4</b>



# 17.9 Sales through vending machines, distribution and percentage change, by selected type of machine, 1981-84 (concluded)

Type of machine	1983		1984		Percentage change 1983-84
	\$'000	%	\$'000	%	
Cigarettes	116,919.4	34.3	119,449.7	31.5	+2.2
Beverages					
Coffee	61,673.5	18.1	81,316.4	21.5	+31.8
Soft drinks					
- Can or bottle	53,157.0	15.6	57,132.5	15.1	+7.5
- Disposable cups	16,424.3	4.8	16,915.7	4.5	+3.0
Packaged milk	8,950.6	2.6	9,822.9	2.6	+9.7
Other beverages	6,828.4	2.0	6,897.0	1.8	+1.0
Confections and foods					
Bulk confectionery	3,433.4	1.0	3,505.5	0.9	+2.1
Packaged confectionery	32,286.3	9.5	38,061.4	10.0	+17.9
Pastries	8,288.3	2.4	8,497.4	2.2	+2.5
Snack food	7,452.5	2.2	7,639.8	2.0	+2.5
Hot canned foods and soups	2,603.0	0.8	2,372.0	0.6	-8.9
Ice cream	1,070.4	0.3	1,028.9	0.3	-3.9
Fresh food (casseroles, hot dogs, sandwiches, salads)					
Other vending machines for food	21,001.5	6.2	24,519.2	6.5	+16.7
All other food and non-food	844.1	0.2	1,869.2	0.5	+121.4
Total	340,932.7	100.0	379,027.6	100.0	+11.2

# 17.10 Direct sales by commodity, 1982-85

Commodity	1982		1983		
	\$'000	%	\$'000	%	
Meat, fish and poultry	26,878	1.1	24,552	1.0	
Frozen food plans	17,706	0.7	15,546	0.7	
Dairy products	297,369	11.8	265,422	11.5	
Bakery products	231,282	9.2	103,719	4.5	
Nutritional and other foods and beverages	111,011	4.4	101,205	4.4	
Clothing and shoes	31,877	1.3	45,089	1.9	
Fur goods	18,798	0.7	5,241	0.2	
Books and encyclopedias	189,831	7.5	209,786	9.0	
Newspapers	291,946	11.6	291,874	12.6	
Magazines	83,848	3.3	116,726	5.0	
Home improvement products	57,731	2.3	61,758	2.7	
Household cleaners, soaps, brushes, brooms and mops	112,781	4.5	76,390	3.3	
Dinnerware, kitchenware and utensils	114,024	4.5	118,330	5.1	
Furniture, home furnishings and repairs	122,075	4.8	20,938	0.9	
Household electrical appliances	151,729	6.0	182,139	7.9	
Phonograph records and tapes	21,233	0.8	34,248	1.5	
Video games, home computers and accessories			1,470	0.1	
Cosmetics and personal care products	217,186	8.6	203,317	8.8	
Jewellery	44,818	1.8	52,967	2.3	
Boats and pleasure craft	12,770	0.5	20,132	0.9	
Canvas products: awnings, sails, tents, etc.	12,023	0.5	14,146	0.6	
Greenhouse and nursery products	96,686	3.8	92,564	4.0	
Orthopedic supplies and artificial limbs			7,009	0.3	
Monuments and tombstones			12,265	0.5	
Toys, games, hobbies, crafts and cards	61,788	2.5	75,716	3.3	
All other merchandise	196,809	7.8	161,010	7.0	
Total, all commodities	2,522,199	100.0	2,313,560	100.0	
	1984		1985		Percentage change 1984-85
	\$'000	%	\$'000	%	
Meat, fish and poultry	23,598	1.0	18,975	0.8	-19.6
Frozen food plans	12,484	0.5	11,651	0.5	-6.7
Dairy products	312,798	12.8	320,029	12.8	+2.3
Bakery products	103,626	4.3	102,986	4.1	-0.6
Nutritional and other foods and beverages	120,367	4.9	90,234	3.6	-25.0
Clothing and shoes	48,357	2.0	60,749	2.4	+25.6
Fur goods	5,768	0.2	6,914	0.3	+19.9
Books and encyclopedias	227,855	9.3	244,871	9.8	+7.5
Newspapers	318,494	13.1	348,623	13.9	+9.5
Magazines	147,686	6.1	167,024	6.7	+13.1
Home improvement products	56,862	2.3	58,427	2.3	+2.8
Household cleaners, soaps, brushes, brooms and mops	76,837	3.1	62,896	2.5	-18.1
Dinnerware, kitchenware and utensils	104,060	4.3	107,251	4.3	+3.1

## 17.10 Direct sales by commodity, 1982-85 (concluded)

Commodity	1984		1985		Percentage change 1984-85
	\$'000	%	\$'000	%	
Furniture, home furnishings and repairs	19,151	0.8	24,326	1.0	+ 27.0
Household electrical appliances	182,484	7.5	179,809	7.2	-1.5
Phonograph records and tapes	44,060	1.8	53,270	2.1	+ 20.9
Video games, home computers and accessories	4,852	0.2	2,851	0.1	-41.2
Cosmetics and personal care products	187,895	7.7	190,292	7.6	+1.3
Jewellery	48,114	2.0	53,149	2.1	+ 10.5
Boats and pleasure craft	17,196	0.7	12,272	0.5	-28.6
Canvas products: awnings, sails, tents, etc.	15,276	0.6	14,463	0.6	-5.3
Greenhouse and nursery products	99,571	4.1	100,401	4.0	+0.8
Orthopedic supplies and artificial limbs	7,980	0.3	8,553	0.3	+7.2
Monuments and tombstones	12,594	0.5	13,576	0.5	+7.8
Toys, games, hobbies, crafts and cards	82,443	3.4	90,632	3.6	+9.9
All other merchandise	157,288	6.5	161,766	6.5	+2.8
Total, all commodities	2,437,696	100.0	2,505,990	100.0	+2.8

## 17.11 Methods of distribution of direct sales, 1984 and 1985

Year and commodity	From premises %	By mail %	Home delivery %	Personal selling %	Through other channels <sup>1</sup> %	Total direct sales \$'000
1984						
Meat, fish and poultry	61.4	—	—	17.1	21.5	23,598
Frozen food plans	6.1	—	—	93.9	—	12,484
Dairy products	28.6	0.1	71.4	—	—	312,798
Bakery products	47.6	—	51.6	—	0.8	103,626
Nutritional and other foods and beverages	10.0	0.8	—	62.3	27.0	120,367
Clothing and shoes	39.8	19.0	—	41.2	—	48,357
Fur goods	100.0	—	—	—	—	5,768
Books and encyclopedias	4.7	78.9	—	16.4	—	227,855
Newspapers	0.7	7.6	80.0	—	11.7	318,494
Magazines	—	88.9	—	11.1	—	147,686
Home improvement products	58.8	—	—	34.6	6.6	56,862
Household cleaners, soaps, brushes, brooms and mops	1.8	—	—	98.2	—	76,837
Dinnerware, kitchenware and utensils	1.7	7.7	—	90.7	—	104,060
Furniture, home furnishings and repairs	78.7	—	—	21.3	—	19,151
Household electrical appliances	18.6	3.5	—	77.9	—	182,484
Phonograph records and tapes	—	100.0	—	—	—	44,060
Video games, home computers and accessories	—	100.0	—	—	—	4,852
Cosmetics and personal care products	0.4	5.3	—	94.4	—	187,895
Jewellery	3.5	20.1	—	76.4	—	48,114
Boats and pleasure craft	100.0	—	—	—	—	17,196
Canvas products: awnings, sails, tents, etc.	100.0	—	—	—	—	15,276
Greenhouse and nursery products	16.8	11.1	—	—	72.1	99,571
Orthopedic supplies and artificial limbs	100.0	—	—	—	—	7,980
Monuments and tombstones	77.0	—	—	23.0	—	12,594
Toys, games, hobbies, crafts, cards	5.9	53.2	—	40.9	—	82,443
All other merchandise	8.3	53.4	—	38.1	0.1	157,288
Total, all commodities	15.4	23.3	21.8	33.2	6.2	2,437,696
1985						
Meat, fish and poultry	66.6	—	—	6.9	26.6	18,975
Frozen food plans	8.1	—	—	91.9	—	11,651
Dairy products	18.5	0.1	81.4	—	—	320,025
Bakery products	51.4	—	47.5	—	1.1	102,986
Nutritional and other foods and beverages	5.5	—	—	85.8	8.7	90,234
Clothing and shoes	48.8	15.1	—	36.1	—	60,745
Fur goods	100.0	—	—	—	—	6,914
Books and encyclopedias	3.5	78.7	—	17.8	—	244,871
Newspapers	0.5	7.3	80.1	—	12.1	348,621
Magazines	—	85.9	—	14.1	—	167,021
Home improvement products	66.1	—	—	32.2	1.6	58,421
Household cleaners, soaps, brushes, brooms and mops	0.7	—	—	99.3	—	62,891
Dinnerware, kitchenware and utensils	2.0	7.1	—	90.9	—	107,251
Furniture, home furnishings and repairs	62.8	20.9	—	16.3	—	24,326
Household electrical appliances	19.5	3.7	—	76.3	0.5	179,809
Phonograph records and tapes	—	100.0	—	—	—	53,270
Video games, home computers and accessories	—	100.0	—	—	—	2,851
Cosmetics and personal care products	0.3	3.5	—	96.1	—	190,292
Jewellery	2.4	33.5	—	64.1	—	53,149

**17.11 Methods of distribution of direct sales, 1984 and 1985 (concluded)**

Year and commodity	From premises %	By mail %	Home delivery %	Personal selling %	Through other channels <sup>1</sup> %	Total direct sales \$'000
Boats and pleasure craft	100.0	—	—	—	—	12,272
Canvas products: awnings, sails, tents, etc.	85.6	—	—	—	—	14,463
Greenhouse and nursery products	10.2	13.2	—	14.4	—	100,401
Orthopedic supplies and artificial limbs	100.0	—	—	—	76.6	8,553
Monuments and tombstones	72.4	—	—	—	—	13,576
Toys, games, hobbies, crafts, cards	6.7	57.4	—	27.6	—	90,632
All other merchandise	8.4	54.2	—	35.9	—	161,766
				37.0	0.3	
Total, all commodities	13.7	24.9	23.5	32.5	5.4	2,505,990

**17.12 Summary statistics of major traveller accommodation groups, 1980-84**

Year and accommodation group	Locations No.	Rooms No.	Cabins and cottages No.	Tent trailer spaces No.	Total receipts \$'000
<b>1980</b>					
Hotels	4,814	201,982	3,001	2,839	3,711,175
Motels	3,945	77,450	2,888	5,306	514,436
Tourist homes	279	1,988	58	14	4,763
Tourist courts and cabins	2,005	637	17,275	5,133	58,020
Outfitters	1,554	1,299	11,285	7,245	98,919
Tent and trailer campgrounds	3,143	980	3,821	309,169	156,757
Total	15,740	284,336	38,328	329,706	4,544,070
<b>1981</b>					
Hotels	4,520	200,959	3,062	3,092	4,151,161
Motels	3,904	78,573	2,641	4,731	610,780
Tourist homes	261	1,821	59	45	5,200
Tourist courts and cabins	1,992	670	17,380	5,093	70,837
Outfitters	1,393	1,031	10,164	6,644	100,042
Tent and trailer campgrounds	2,975	1,037	3,652	310,407	168,981
Total	15,045	284,091	36,958	330,012	5,107,001
<b>1982</b>					
Hotels	4,295	204,607	3,150	2,614	4,332,281
Motels	3,844	78,501	2,551	4,906	603,961
Tourist homes	244	1,745	50	55	5,400
Tourist courts and cabins	2,030	658	17,576	5,674	75,369
Outfitters	1,359	984	10,192	6,323	104,102
Tent and trailer campgrounds	2,968	611	3,806	310,008	183,085
Total	14,740	287,106	37,325	329,580	5,304,198
<b>1983</b>					
Hotels	4,266	211,418	3,555	2,468	4,517,935
Motels	3,836	79,209	2,533	5,508	608,909
Tourist homes	241	2,220	—	—	6,400
Tourist courts and cabins	2,033	664	17,654	5,815	81,768
Outfitters	1,311	1,051	9,927	6,011	108,993
Tent and trailer campgrounds	2,962	544	3,909	310,549	189,335
Total	14,649	295,106	37,578	330,351	5,513,340
<b>1984</b>					
Hotels	4,142	208,073	3,438	2,888	4,721,781
Motels	3,634	75,405	2,595	5,276	599,172
Tourist homes	228	2,188	—	—	7,300
Tourist courts and cabins	1,965	585	17,235	6,300	85,111
Outfitters	1,331	1,487	10,033	5,980	129,038
Tent and trailer campgrounds	2,966	554	3,928	312,139	211,036
Total	14,266	288,292	37,229	332,583	5,753,438

**17.13 Locations and receipts of major traveller accommodation groups, by province, 1980-84**

Year and province or territory	Hotels		Motels		Total receipts <sup>1</sup>	
	Locations No.	Receipts \$'000	Locations No.	Receipts \$'000	\$'000	% distribu- tion
1980						
Newfoundland	83	45,941	42	8,561	54,502	1.3
Prince Edward Island	22	9,931	60	5,043	14,974	0.4
Nova Scotia	86	64,038	155	20,920	84,958	2.0
New Brunswick	73	48,077	159	17,170	65,247	1.5
Quebec	1,527	702,001	711	86,787	788,788	18.7
Ontario	1,147	1,066,958	1,362	146,521	1,213,479	28.7
Manitoba	278	218,425	102	14,261	232,686	5.5
Saskatchewan	450	215,269	155	20,575	235,844	5.6
Alberta	512	617,720	354	82,751	700,471	16.6
British Columbia	581	680,487	817	106,265	786,752	18.6
Yukon	35	24,003	20	3,964	27,967	0.6
Northwest Territories	20	18,325	8	1,618	19,943	0.5
Canada	4,814	3,711,175	3,945	514,436	4,225,611	100.0
1981						
Newfoundland	79	49,715	42	7,288	57,003	1.2
Prince Edward Island	25	11,077	55	6,209	17,286	0.4
Nova Scotia	83	69,962	153	24,647	94,609	2.0
New Brunswick	63	46,874	163	24,639	71,513	1.5
Quebec	1,271	744,814	709	99,059	843,873	17.7
Ontario	1,103	1,189,550	1,346	191,641	1,381,191	29.0
Manitoba	274	237,961	103	17,943	255,904	5.4
Saskatchewan	460	235,880	160	22,449	258,329	5.4
Alberta	529	747,499	349	90,578	838,077	17.6
British Columbia	582	770,588	799	120,498	891,086	18.7
Yukon	32	27,853	17	2	2	2
Northwest Territories	19	19,388	8	2	2	2
Canada	4,520	4,151,161	3,904	610,780	4,761,941	100.0
1982						
Newfoundland	75	51,790	37	6,720	58,510	1.2
Prince Edward Island	25	12,864	56	5,600	18,464	0.4
Nova Scotia	79	77,338	148	25,891	103,229	2.1
New Brunswick	66	54,882	158	24,126	79,008	1.6
Quebec	1,096	735,070	685	97,183	832,253	16.8
Ontario	1,047	1,248,704	1,331	189,335	1,438,039	29.1
Manitoba	266	281,180	103	18,755	299,935	6.1
Saskatchewan	457	255,586	162	27,813	283,399	5.7
Alberta	550	786,865	349	86,110	872,975	17.7
British Columbia	580	768,793	787	114,995	883,788	17.9
Yukon	31	33,127	19	5,565	38,692	0.8
Northwest Territories	23	26,082	9	1,868	27,950	0.6
Canada	4,295	4,332,281	3,844	603,961	4,936,242	100.0
1983						
Newfoundland	77	56,616	33	7,113	67,929	1.2
Prince Edward Island	24	14,568	54	5,778	24,076	0.4
Nova Scotia	79	84,375	147	25,913	116,431	2.1
New Brunswick	63	54,316	162	26,129	86,049	1.6
Quebec	1,037	751,508	679	102,853	911,934	16.6
Ontario	1,026	1,302,152	1,330	189,399	1,667,290	30.3
Manitoba	266	304,188	101	18,250	344,614	6.3
Saskatchewan	459	287,590	162	29,039	335,982	6.1
Alberta	586	798,624	339	74,122	884,544	16.1
British Columbia	593	806,893	804	123,382	975,559	17.7
Yukon	32	28,622	17	2	36,979	0.7
Northwest Territories	24	28,484	8	2	35,065	0.6
Canada	4,266	4,517,935	3,836	608,909	5,506,940	100.0
1984						
Newfoundland	76	60,946	30	6,303	72,222	1.3
Prince Edward Island	23	14,040	52	2	23,488	0.4
Nova Scotia	81	96,823	142	26,531	129,848	2.3
New Brunswick	68	65,798	144	24,512	96,888	1.7
Quebec	979	841,277	628	97,447	1,006,555	17.5
Ontario	1,006	1,397,711	1,275	203,731	1,793,062	31.2
Manitoba	267	320,495	95	15,722	359,827	6.3
Saskatchewan	445	287,544	150	26,173	335,591	5.8
Alberta	569	770,758	324	73,024	855,731	14.9
British Columbia	572	806,688	768	112,690	971,428	16.9
Yukon	30	28,300	18	5,685	40,601	0.7
Northwest Territories	26	31,401	8	2	38,912	0.7
Canada	4,142	4,721,781	3,634	599,172	5,746,138	100.0

<sup>1</sup> Includes tourist homes, tourist courts and cabins, outfitters, and tent and trailer campgrounds; components will not add to totals because no provincial revenue distribution is available for federal campgrounds.

<sup>2</sup> Confidential.



### 17.14 Restaurant, caterer and tavern receipts, by province, 1981-85 (thousand dollars)

Province or territory	1981	1982	1983	1984	1985
Newfoundland	135.1	136.6	140.7	129.9	122.3
Prince Edward Island	36.3	36.3	41.6	45.0	46.0
Nova Scotia	256.4	257.1	272.0	285.0	304.5
New Brunswick	167.3	186.9	187.2	206.9	219.0
Quebec	2,199.3	2,188.9	2,390.1	2,655.7	2,903.7
Ontario	3,476.4	3,827.7	3,969.4	4,210.8	4,647.8
Manitoba	288.8	312.4	333.2	374.7	415.9
Saskatchewan	273.1	321.9	335.2	343.1	356.4
Alberta	940.1	1,056.3	1,049.6	1,089.0	1,185.6
British Columbia	1,289.7	1,233.4	1,351.1	1,422.8	1,529.6
Yukon and Northwest Territories	29.0	18.9	19.8	29.1	29.4
Canada	9,091.5	9,576.6	10,089.9	10,791.9	11,760.1

### 17.15 Wholesale merchant establishments, volume of trade<sup>1</sup> by province, 1981-84 (million dollars)

Province	1981 <sup>1</sup>	1982	1983	1984 <sup>2</sup>
Newfoundland	1,084.1	1,185.4	1,379.0	1,536.7
Prince Edward Island	232.6	214.8	220.5	259.5
Nova Scotia	1,655.2	1,861.6	2,056.2	2,322.7
New Brunswick	3,429.2	3,010.4	3,292.7	3,222.5
Quebec	29,243.7	30,248.0	33,729.2	38,990.2
Ontario	57,724.6	53,164.3	60,726.5	71,425.2
Manitoba	16,234.4	17,803.9	17,849.8	19,342.3
Saskatchewan	6,410.7	6,862.5	7,071.5	7,373.5
Alberta	14,766.2	15,333.8	15,435.9	16,663.6
British Columbia <sup>2</sup>	17,047.0	15,658.8	17,168.9	19,025.7

<sup>1</sup> Sales and trading receipts, and the value of goods bought or sold on commission.

<sup>2</sup> Includes Yukon and Northwest Territories.

### 17.16 Wholesale merchant establishments, volume of trade<sup>1</sup> by trade group, 1981-84 (million dollars)

SIC trade group	1981 <sup>1</sup>	1982	1983	1984 <sup>2</sup>
Farm products	19,010.7	18,703.4	18,538.3	19,770.4
Coal, coke and petroleum products	23,728.9	25,258.9	26,142.6	27,850.7
Paper and paper products	2,815.7	2,730.5	3,081.3	3,790.5
General merchandise	497.6	458.7	<sup>2</sup>	<sup>2</sup>
Food	21,034.2	23,066.8	25,786.9	28,720.5
Tobacco products, drugs and toilet preparations	<sup>2</sup>	3,893.9	4,424.6	5,035.0
Apparel and dry goods	2,218.5	2,111.7	2,725.1	3,242.2
Household furniture and house furnishings	1,782.4	1,585.8	1,705.1	1,951.5
Motor vehicles and accessories	9,814.0	9,663.9	10,738.6	13,301.4
Electrical machinery, equipment and supplies	6,710.1	7,249.8	9,592.1	12,330.4
Farm machinery	5,654.2	4,722.9	4,771.9	4,932.9
Machinery	15,043.0	13,432.4	13,568.7	15,766.8
Hardware, plumbing and heating equipment	4,343.3	3,847.8	4,067.7	4,999.8
Metals and metal products	<sup>2</sup>	5,265.8	<sup>2</sup>	<sup>2</sup>
Lumber and building materials	10,077.2	8,980.6	11,325.8	12,384.0
Scrap and waste materials	1,182.7	854.2	<sup>2</sup>	<sup>2</sup>
Wholesalers, n.e.s.	14,457.1	13,516.7	14,713.3	16,787.3
Total, all trades	147,827.6	145,343.6	158,930.4	180,161.9

<sup>1</sup> Sales and trading receipts, and the value of goods bought or sold on commission.

<sup>2</sup> Confidential.

### 17.17 Agents and brokers, volume of trade<sup>1</sup> by trade group and province, 1981-84 (million dollars)

Province and SIC trade group	1981 <sup>1</sup>	1982	1983	1984 <sup>P</sup>
Newfoundland	228.8	245.3	243.9	348.9
Prince Edward Island	55.0	58.2	36.7	42.0
Nova Scotia	530.3	435.4	424.8	485.9
New Brunswick	285.2	295.0	270.5	288.6
Quebec	6,006.4	5,817.0	5,278.4	5,896.0
Ontario	9,836.6	8,683.9	14,490.5	15,479.3
Manitoba	6,165.4	4,884.1	2,065.8	2,227.1
Saskatchewan	707.0	1,039.7	1,180.4	1,180.5
Alberta	2,396.1	2,284.5	3,697.6	3,877.3
British Columbia <sup>2</sup>	2,948.9	3,585.0	3,494.3	3,759.8
Farm products	10,839.1	11,195.8	7,022.4	7,849.7
Coal, coke and petroleum products	3,650.7	4,332.0	4,553.8	5,026.3
Paper and paper products	402.2	334.4	347.0	366.9
General merchandise	72.6	37.7	<sup>3</sup>	<sup>3</sup>
Food	2,728.4	2,594.7	7,062.1	7,257.2
Tobacco products, drugs and toilet preparations	<sup>3</sup>	78.1	111.8	150.3
Apparel and dry goods	1,928.8	1,485.0	1,649.5	1,669.3
Household furniture and house furnishings	543.4	364.8	525.6	612.3
Motor vehicles and accessories	448.1	373.8	553.5	576.0
Electrical machinery, equipment and supplies	823.7	729.9	1,244.6	1,615.0
Farm machinery	51.3	49.8	98.3	99.5
Machinery and equipment	650.6	555.3	526.7	517.7
Hardware, plumbing and heating equipment	752.3	450.4	945.4	1,575.2
Metals and metal products	<sup>3</sup>	2,471.5	<sup>3</sup>	<sup>3</sup>
Lumber and building materials	526.6	511.5	989.4	910.1
Scrap and waste materials	15.4	10.3	<sup>3</sup>	18.1
Wholesalers, n.e.s.	2,131.0	1,753.3	1,767.4	2,053.6
Total, all trades	29,159.8	27,328.4	31,182.2	33,585.6

<sup>1</sup> Sales and trading receipts, including value of goods bought or sold on commission.<sup>2</sup> Includes Yukon and Northwest Territories.<sup>3</sup> Confidential.

### 17.18 Agents and brokers, gross commissions earned by trade group and province, 1981-84 (million dollars)

Province and SIC trade group	1981 <sup>1</sup>	1982	1983	1984 <sup>P</sup>
Newfoundland	11.9	12.7	12.2	14.9
Prince Edward Island	<sup>1</sup>	2.2	1.7	4.3
Nova Scotia	20.9	18.6	19.0	23.8
New Brunswick	14.1	12.6	11.9	13.8
Quebec	176.6	165.8	184.3	202.7
Ontario	244.3	224.8	251.4	326.0
Manitoba	66.3	95.6	91.5	92.6
Saskatchewan	<sup>1</sup>	37.4	37.8	42.2
Alberta	<sup>1</sup>	94.5	94.5	109.7
British Columbia <sup>2</sup>	124.9	128.6	144.3	139.7
Farm products	131.8	159.0	147.6	164.6
Coal, coke and petroleum products	210.5	215.8	204.6	232.6
Paper and paper products	8.0	<sup>1</sup>	10.1	11.0
General merchandise	1.9	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>
Food	75.0	90.0	110.2	118.2
Tobacco products, drugs and toilet preparations	<sup>1</sup>	<sup>1</sup>	7.8	14.7
Apparel and dry goods	85.2	71.3	80.7	93.3
Household furniture and house furnishings	24.8	16.4	23.8	28.8
Motor vehicles and accessories	24.8	20.7	23.6	24.0
Electrical machinery, equipment and supplies	44.8	35.0	56.7	59.1
Farm machinery	1.7	<sup>1</sup>	4.8	5.1
Machinery and equipment	34.3	37.7	36.3	41.6
Hardware, plumbing and heating equipment	24.0	<sup>1</sup>	25.3	36.2
Metals and metal products	<sup>1</sup>	12.6	<sup>1</sup>	<sup>1</sup>
Lumber and building materials	13.7	<sup>1</sup>	28.2	27.4
Scrap and waste materials	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>	2.0
Wholesalers, n.e.s.	82.9	76.0	72.6	92.2
Total, all trades	790.6	792.8	848.7	969.8

<sup>1</sup> Confidential.<sup>2</sup> Includes Yukon and Northwest Territories.

### 17.19 Summary statistics of co-operative associations, 1978-84, and by region, 1981-84

Year and region	Associations	Shareholders or members	Assets \$'000,000	Product farm marketings \$'000,000	Sales of merchandise and supplies \$'000,000	Service revenue \$'000,000	Total business <sup>1</sup> \$'000,000
1978	2,498	2,499,000	3,063.6	4,612.9	2,697.9	402.5	7,783.3
1979	2,611	2,702,900	3,669.3	5,185.3	3,214.6	434.0	8,926.0
1980	2,677	2,748,100	4,150.8	6,606.0	3,742.4	567.7	11,036.0
1981	2,871	2,794,000	5,366.2	7,574.9	4,481.5	625.0	12,832.3
1982	3,053	2,899,400	5,453.5	8,200.4	4,792.2	770.2	13,924.0
1983	3,024	2,843,300	5,879.8	8,059.9	4,830.5	789.5	13,862.6
1984	3,316	2,869,400	6,112.9	8,769.4	5,069.7	874.3	14,937.4
Atlantic <sup>2</sup>							
1981	300	115,700	184.3	299.0	325.7	9.4	644.6
1982	318	133,000	222.6	323.0	374.0	11.5	721.7
1983	341	145,600	265.9	351.1	408.7	14.1	788.8
1984	345	141,600	294.7	359.8	449.9	15.8	842.0
Quebec							
1981	785	428,100	796.6	1,136.2	945.6	46.3	2,161.8
1982	884	471,900	866.2	1,286.8	986.4	59.8	2,373.7
1983	869	500,300	922.1	1,288.8	971.9	73.1	2,383.8
1984	838	494,700	968.1	1,466.7	992.2	75.4	2,588.3
Ontario							
1981	228	135,900	373.0	342.9	507.1	30.4	891.5
1982	273	143,700	440.8	360.2	514.4	40.3	931.7
1983	306	150,400	504.8	373.0	521.3	52.4	972.5
1984	311	154,400	576.8	393.1	581.0	58.0	1,065.5
West <sup>3</sup>							
1981	1,558	2,114,300	4,012.4	5,796.8	2,703.1	538.9	9,134.5
1982	1,578	2,150,800	3,923.9	6,230.3	2,917.4	658.6	9,897.0
1983	1,508	2,047,000	4,187.0	6,047.0	2,928.6	650.0	9,717.5
1984	1,822	2,078,700	4,273.2	6,549.8	3,046.5	725.1	10,441.7

<sup>1</sup> Includes other income.<sup>2</sup> Includes Nfld., PEI, NS, NB.<sup>3</sup> Includes Man., Sask., Alta., BC.

### 17.20 Sales of products handled by co-operatives, 1981-84 (million dollars<sup>1</sup>)

Product marketing	1981	1982	1983	1984
Grains	3,722	4,215	4,115	4,224
Oilseeds	745	646	565	895
Fruit	85	101	98	110
Vegetables	77	77	82	113
Dairy products	1,819	2,069	2,136	2,356
Poultry	203	216	254	270
Eggs	18	18	18	18
Livestock				
Cattle and sheep	541	469	430	408
Hogs	126	134	122	133
Fish	138	133	120	109
Forest products	49	56	49	53
Honey and maple products	23	23	27	29
Other	32	43	46	52
Total, marketing	7,575	8,200	8,060	8,769
Consumer and supply				
Food products	1,313	1,516	1,575	1,619
Dry goods and home hardware	283	307	313	308
Other	82	98	101	110
Sub-total, consumer	1,678	1,921	1,989	2,037
Agriculture				
Animal feed	669	632	612	678
Fertilizer and chemicals	496	530	536	641
Seeds	82	79	84	81
Farm supplies	214	207	196	210
Sub-total, agriculture	1,461	1,449	1,428	1,611
Machinery, vehicles and parts	219	188	174	168
Petroleum products	870	991	1,012	1,029
Building materials	241	235	218	211
Other	14	9	10	13
Total, supplies	4,482	4,792	4,831	5,070

Rounded to nearest million.

17.21 Value and volume of sales of alcoholic beverages, years ended March 31, 1982-85

Province or territory	Value (\$'000,000)							
	Spirits				Wines			
	1982	1983	1984	1985	1982	1983	1984	1985
Nfld.	55.5	61.7	64.7	64.5	8.9	9.9	10.9	11.1
PEI	15.5	17.0	17.7	18.0	2.7	2.9	3.2	3.3
NS	100.6	109.3	114.6	115.7	21.5	24.5	26.7	28.7
NB	59.0	63.9	65.8	64.5	13.6	15.6	17.1	17.6
Que.	406.1	428.3	442.2	446.1	317.5	356.6	397.9	434.2
Ont.	936.8	1,029.4	1,051.4	1,098.9	351.2	396.0	416.5	444.9
Man.	127.2	144.8	145.1	149.8	29.7	35.9	37.2	38.5
Sask.	115.1	131.7	142.6	142.1	20.1	22.8	24.4	25.5
Alta.	365.2	397.4	402.8	393.8	103.0	114.5	121.7	120.1
BC	418.3	430.3	426.3	425.5	183.1	194.6	204.2	214.5
YT	6.7	6.1	6.0	6.1	2.3	2.3	2.2	2.2
NWT	9.1	9.9	10.7	11.3	1.9	2.0	2.2	2.3
Canada	2,615.1	2,829.8	2,889.9	2,936.3	1,055.5	1,177.6	1,264.2	1,343.0
	Beer				Total			
Nfld.	99.3	113.4	122.3	136.1	163.7	185.0	197.9	211.7
PEI	14.4	16.3	17.6	19.0	32.6	36.2	38.5	40.4
NS	94.3	105.7	115.4	129.6	216.4	239.5	256.7	274.0
NB	83.5	93.8	100.2	109.6	156.1	173.2	183.1	191.7
Que.	579.5	580.2	773.5	806.5	1,303.1	1,365.0	1,613.6	1,686.8
Ont.	894.5	1,057.2	1,162.5	1,217.7	2,182.5	2,482.6	2,630.4	2,761.5
Man.	88.7	108.1	121.6	138.5	245.6	288.8	303.9	326.8
Sask.	83.0 <sup>f</sup>	95.2	110.5	122.7	218.2 <sup>f</sup>	249.6	277.5	290.3
Alta.	263.9	309.0	337.8	343.4	732.1	821.0	862.3	857.3
BC	309.2	358.9	379.2	404.3	910.6	983.9	1,009.7	1,044.3
YT	6.6	6.7	6.7	7.3	15.6	15.1	14.9	15.6
NWT	6.8	8.2	9.1	9.9	17.8	20.2	22.0	23.5
Canada	2,523.7	2,852.7	3,256.4	3,444.6	6,194.3	6,860.1	7,410.5	7,723.9
	Volume ('000 litres)							
	Spirits				Wines			
Nfld.	4.0	4.0	3.9	3.7	1.6	1.7	1.6	1.6
PEI	1.0	0.9	0.9	0.9	0.5	0.5	0.5	0.5
NS	7.2	7.1	6.6	6.2	4.5	4.9	5.0	5.3
NB	4.2	4.1	3.7	3.5	2.8	3.0	3.1	3.2
Que.	30.4	27.9	26.8	25.6	62.6	61.8	64.6	68.6
Ont.	73.2	70.2	65.8	64.8	75.7	80.4	80.8	84.9
Man.	9.9	9.3	8.3	8.1	7.2	7.4	6.9	7.1
Sask.	8.6	8.9	8.4	7.8	4.9	5.1	5.1	5.3
Alta.	28.2	27.1	24.6	22.7	22.8	23.8	22.6	22.5
BC	30.0	27.9	25.7	24.5	40.3	43.0	44.2	46.3
YT	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.3
NWT	0.5	0.6	0.5	0.6	0.3	0.3	0.3	0.3
Canada	197.6	188.3	175.5	168.7	223.6	232.3	235.1	245.9
	Beer				Total			
Nfld.	49.4	50.6	49.1	51.0	55.0	56.3	54.6	56.3
PEI	8.3	9.0	8.8	9.1	9.8	10.4	10.2	10.5
NS	61.7	60.9	62.0	64.7	73.4	72.9	73.6	76.2
NB	52.2	52.9	51.5	52.3	59.2	60.0	58.3	59.0
Que.	583.3	555.5	565.8	559.0	676.3	645.2	657.2	653.2
Ont.	760.1	764.0	777.1	765.8	909.0	914.6	923.7	915.5
Man.	78.9	79.7	84.2	88.3	96.0	96.4	99.4	103.5
Sask.	65.1	63.7	66.4	68.3	78.6	77.7	79.9	81.4
Alta.	184.0	181.3	178.9	176.3	235.0	232.2	226.1	221.5
BC	237.0	232.0	227.1	231.3	307.3	302.9	297.0	302.1
YT	3.2	3.1	2.9	3.2	4.0	3.8	3.6	3.8
NWT	3.4	3.6	4.0	4.1	4.2	4.5	4.8	5.0
Canada	2,086.6	2,056.3	2,077.8	2,073.4	2,507.8	2,476.9	2,488.4	2,488.0



### 17.22 Revenue of all governments<sup>1</sup> specifically derived from the control, taxation and sale of alcoholic beverages, years ended March 31, 1982-85 (million dollars)

Government	1982	1983	1984	1985
Government of Canada	914.6	1,010.1	1,061.4	1,159.1
Provincial and territorial governments				
Newfoundland	53.4	62.0	70.0	74.8
Prince Edward Island	13.8	15.1	16.0	16.6
Nova Scotia	80.0	88.6	99.2	105.0
New Brunswick	54.8	61.4	68.8	71.8
Quebec	289.3 <sup>f</sup>	345.6	386.8	405.3
Ontario	677.6	733.3	778.4	857.3
Manitoba	92.1	119.6	129.2	137.0
Saskatchewan	85.0	97.2	113.4	117.1
Alberta	239.1	282.4	298.9	305.0
British Columbia	334.7	352.1	364.6	369.2
Total, provincial governments	1,919.8 <sup>f</sup>	2,157.3	2,325.3	2,459.1
Yukon	6.3	6.1	5.8	5.9
Northwest Territories	7.6	8.2	9.1	9.2
Total, provincial and territorial governments	1,933.7 <sup>f</sup>	2,171.6	2,340.2	2,474.2
Total, all governments	2,848.3 <sup>f</sup>	3,181.7	3,401.6	3,633.3

<sup>f</sup> Revenue of the Government of Canada comprises excise duties, excise taxes, import duties and certain fees and licences. Revenue of provinces and territories includes revenue collected directly by the provincial and territorial governments as well as revenue of liquor authorities but excludes revenue resulting from general retail sales taxation.

### 17.23 Establishments primarily providing computer services, 1980-84

Item	1980	1981	Percentage change 1980-81	1982	Percentage change 1981-82
Establishments	1,036	1,392	+ 34.2	1,752	+ 25.9
Working proprietors	61	101	+ 65.6	180	+ 78.2
Paid employees	17,538	20,495	+ 16.9	22,137	+ 8.0
Salaries and wages (\$'000)	315,057	426,140	+ 35.3	534,540	+ 25.4
Employee benefits "	18,017	25,174	+ 39.7	32,788	+ 30.2
Operating revenue "	819,804	1,102,243	+ 34.5	1,347,677	+ 22.3
Revenue generated outside Canada "	48,893	58,764	+ 20.2	72,580	+ 23.5
Total operating expenses (\$'000)	728,441	953,493	+ 30.9	1,232,315	+ 29.2
	1983	Percentage change 1982-83		1984	Percentage change 1983-84
Establishments	1,836	+ 4.8		2,109	+ 14.9
Working proprietors	218	+ 21.1		278	+ 27.5
Paid employees	21,973	-0.7		24,927	+ 13.4
Salaries and wages (\$'000)	537,939	+ 0.6		635,006	+ 18.0
Employee benefits "	41,064	+ 25.2		45,025	+ 9.6
Operating revenue "	1,441,630	+ 7.0		1,767,251	+ 22.6
Revenue generated outside Canada "	83,367	+ 14.9		126,780	+ 52.1
Total operating expenses (\$'000)	1,401,185	+ 13.7		1,661,981	+ 18.6

#### sources

7.1 - 17.18, 17.23, 17.24 Business and Trade Statistics, Statistics Canada.

7.19, 17.20 Market Improvement Division, Marketing and Economics Branch, Agriculture Canada.

7.21, 17.22 Public Institutions Division, Statistics Canada.



CHAPTER 18

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# **BANKING, FINANCE AND INSURANCE**

## CHAPTER 18

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### BANKING, FINANCE AND INSURANCE

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## THEN



Bank Note Engraving. "Bank Note engraving has become an established industry in Canada. All that was previously done was the mere printing of the plates engraved in the United States . . . the engraving of the Government circulation and of the notes of the Bank of Commerce, also done by the Canadian Company, is of a character of which any country may well be proud, especially a young one like the Dominion; and it is also cause for satisfaction that to a Canadian . . . belongs the credit of inventing the only ink - a peculiar green called the Canada Bank Note Printing Tint, to be seen on almost all our notes - which defies the art of the photographic counterfeiter of currency." (1868)

For Canadian life insurance companies, business increased by over 65% between 1870 and 1871. (1873)

THE ROYAL CANADIAN  
**INSURANCE COMPANY.**  
*FIRE AND MARINE.*

**Authorized Capital, - - - \$5,000,000.**

This Company having complied with the terms of the Act, have secured a Licence, and are now prepared to accept  
**All Classes of Risks Against Fire at Moderate Rates!**

All claims will be paid immediately on the loss being established.

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HON. JOHN YOUNG, M.P., <i>President</i>	J. E. SINCENNES, <i>Vice-President</i>
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E. A. DOWIE, M.P.,	W. CAMPBELL,
ANDREW WILSON,	

Secretary-Treasurer, **ARTHUR GAGNON,** *Member*, **ALFRED PERRY,**  
*Secretary*, **J. A. FRANKLIN,**

**160, ST. JAMES' STREET - - - MONTREAL.**

## NOW

On October 31, 1986, the Canadian banking system consisted of 10 Canadian-owned banks which have been chartered by Parliament, and 55 foreign-owned banks which have received their letters patent. The banks operated 7,020 banking offices in Canada including 168 offices of the foreign bank subsidiaries.

At the end of 1985, there were 3,125 chartered local credit unions in Canada, with total assets of \$44.0 billion.

Between 1984 and 1985, the total assets of trust companies in Canada increased 10%.

At the end of 1985, total life insurance in Canada amounted to \$689 billion.

During 1984, Canadians purchased \$110.3 billion of life insurance, over eight times the 1970 amount.

## CHAPTER 18

# BANKING, FINANCE AND INSURANCE

## 18.1 Banking

### 18.1.1 Bank of Canada

Canada's central bank, the Bank of Canada, began operations on March 11, 1935, under the terms of the Bank of Canada Act, 1934, which charged it with the responsibility to regulate credit and currency in the best interests of the economic life of the nation, to control and protect the external value of the national monetary unit and to mitigate by its influence fluctuations in the general level of production, trade, prices and employment, so far as possible within the scope of monetary action and generally to promote the economic and financial welfare of Canada. The act does not specify the methods that the Bank should use but it confers certain powers that, with provisions in other legislation, enable the Bank to exercise a broad controlling influence over the growth of money and credit in Canada, and thereby to affect levels of spending and economic activity. Revisions to the act were made in 1936, 1938, 1954, 1967 and 1980.

The provisions of the Bank of Canada Act enable the Central Bank to determine the total amount of cash reserves available to the chartered banks as a group and in that way to influence the level of short-term interest rates. The Bank Act, which regulates the chartered banks, requires that each chartered bank maintain a stipulated minimum average amount of cash reserves, calculated as a percentage of deposit liabilities. Under the 1980 Bank Act revision this cash reserve requirement is 10% of reservable Canadian dollar demand deposits, 2% of reservable Canadian dollar notice deposits plus an additional 1% of the amount by which a bank's reservable Canadian dollar notice deposits exceed \$500 million, and 3% of reservable foreign currency deposits. Cash reserves may be held as deposits at the Bank of Canada (or, with that Bank's approval at a chartered bank), holdings of Bank of Canada notes, and holdings of coins with a face value of \$2 or less that were current under the Currency and Exchange Act. The ability of the

chartered banks as a group to expand their total assets and liabilities is therefore limited by the total amount of cash reserves available.

A decrease in cash reserves tends to cause short-term interest rates to rise, making it more costly for the public to hold non-interest-bearing deposits and currency. An increase in cash reserves would put downward pressure on interest rates and indirectly induce the public to hold more money. Control of excess reserves thus provides some control over the growth of the money supply.

There are two primary methods by which the Bank of Canada can alter the level of cash reserves of the chartered banks. The technique employed more often is the transfer of government deposits between the Central Bank and chartered banks. The second method is the purchase or sale of government securities.

The transfer of government deposits from the Bank of Canada to chartered banks or the payment by the Central Bank for the securities purchased adds to the cash reserves of the chartered banks as a group and puts them in a position to expand their assets and deposit liabilities. The more direct method of increasing bank reserves is the transfer of government deposits to chartered banks. Such transfers, which the bank is authorized to make as the fiscal agent of the federal government, do not involve any immediate effect on security prices and yields in financial markets.

If the Bank of Canada wishes to decrease the reserves of the chartered banks, it may either transfer government deposits from accounts at the chartered banks to the government's account at the Central Bank or sell government securities in the market.

In recent years, the aim of monetary policy has been to reduce the rate of inflation while achieving satisfactory levels of economic activity. From 1975 to November 1982, the Bank sought to attain these objectives through a gradual but significant decline in the trend rate of growth of the money supply defined as the

public's holdings of currency and chartered bank demand deposits (M1), a definition which included only forms of money used as a means of payment.

By 1982, as a result of innovations in the financial services industry, the relationship between M1 and interest rates and total spending became so distorted that M1 was no longer sufficiently reliable for use as a monetary target. In November 1982, the Bank announced it was abandoning specific monetary targets. At the same time, it was made clear that this decision did not involve a fundamental change in the Bank's approach to monetary policy. In deciding monetary policy, the Bank of Canada has always attached great importance to evidence in the economic and financial scene that goes beyond the performance of particular aggregates. In current circumstances, it relies on its analysis of a broad range of financial and economic variables, including the trend of total spending in the economy and exchange rate developments, as well as the various monetary and credit aggregates, to come to judgments regarding monetary policy. The objective of monetary policy continues to be, however, a rate of monetary expansion sufficient to accommodate increasing utilization of Canada's economic resources in a context of increasing price stability.

The particular course followed by the Bank of Canada more recently has been to moderate the amplitude of the swings in short-term interest rates in Canada relative to those in the United States with the result that the impact of the movement in US interest rates has fallen partly on Canadian interest rates and partly on the foreign exchange value of the Canadian dollar. The conduct of policy has thus been directed at moderating upward pressure on Canadian prices and costs from exchange depreciation, while at the same time ensuring that the economy continues along the path of longer run monetary restraint.

The Bank of Canada leaves the allocation of bank and other forms of credit to the private sector of the economy. Each chartered bank is free to attempt to gain as large a share as possible of the total cash reserves available by competing for deposits and to decide what proportion of its funds to invest in particular kinds of securities and in loans to particular types of borrowers.

The Bank of Canada may buy or sell securities issued or guaranteed by Canada or any province, certain short-term securities issued by the United

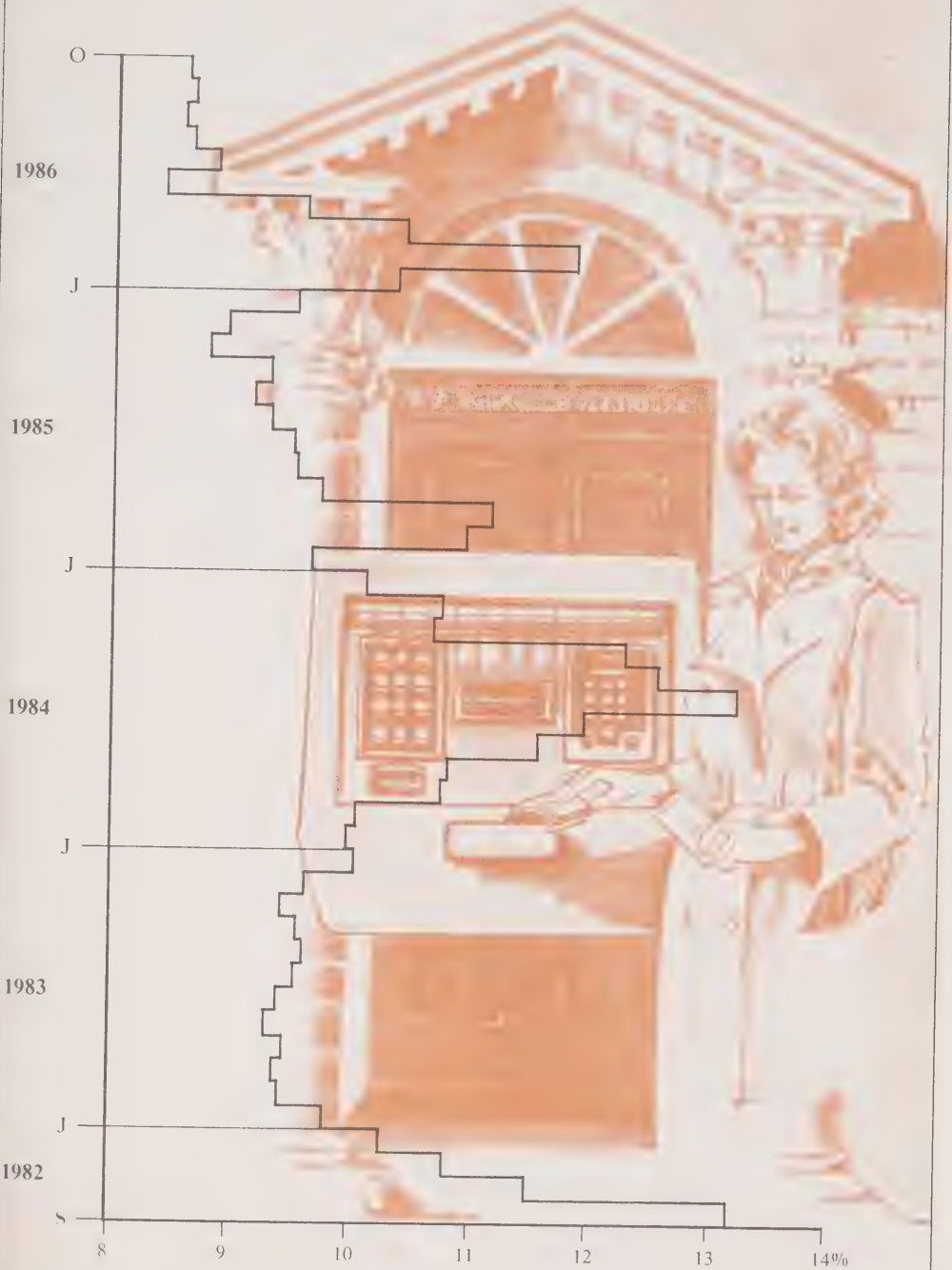
Kingdom, treasury bills or other obligations of the United States and certain types of short-term commercial paper. It may buy and sell gold, silver, nickel and bronze coin, or any other coin, and gold and silver bullion as well as foreign currencies and may accept non-interest-bearing deposits from the federal government or corporations and agencies of the federal government, the government of any province, any chartered bank, any bank regulated by the Quebec Savings Bank Act and any other member of the Canadian Payments Association. The Bank of Canada may open accounts in other central banks or in the Bank for International Settlements as well as maintain accounts in commercial banks to facilitate buying and selling foreign currencies; accept deposits from other central banks, the Bank for International Settlements, the International Monetary Fund, the International Bank for Reconstruction and Development, and any other official international financial organization; and pay interest on such deposits. It may also buy and sell Special Drawing Rights issued by the International Monetary Fund. The Bank of Canada does not accept deposits from individuals nor does it compete with the chartered banks in the commercial banking field. It acts as the fiscal agent for the federal government in payment of interest and principal and generally in respect of management of the public debt of Canada. The sole right to issue paper money for circulation is vested in the Bank.

The Central Bank also may require the chartered banks to maintain, in addition to the legal minimum cash reserve requirement, a secondary reserve which the Bank of Canada may vary within certain limits. The secondary reserve, consisting of cash reserves in excess of the minimum requirement, treasury bills and day-to-day loans to investment dealers, cannot exceed 12%. From February 1977 to November 1981, the required level was 5%; effective December 1981 the required level was 4%. In the event the Bank of Canada wishes to introduce or increase the secondary reserve requirement, 30 days' notice to the chartered banks is required; the amount of any increase in the required ratio cannot exceed 1.0% a month except when no percentage requirement is in effect, and the increase may then be no more than 6.0%. In the case of a lowering of the secondary reserve requirement, however, the percentage change in any one month is not restricted.

The Bank of Canada may make loans or advances for periods not exceeding six months to chartered banks, to banks to which the



Chart 18.1  
Bank rate of the Bank of Canada



Quebec Savings Bank Act applies, or to other members of the Canadian Payments Association that maintain deposits with the Bank, on the pledge of certain classes of securities. Loans or advances may be made under certain conditions and for limited periods to the federal government or to any provincial government. The Bank must make public at all times the minimum rate at which it is prepared to make loans or advances; this rate is known as the Bank Rate. Typically, the Bank Rate is administered directly by the Bank of Canada and is changed from time to time. However, during the period from November 1, 1956 to June 24, 1962 the Bank Rate was set at 1/4 of 1% above the weekly average tender rate of 91-day treasury bills issued by the Government of Canada. On March 10, 1980 the Bank of Canada again established that beginning on March 13, 1980 and until further notice, the Bank Rate would be set at 1/4 of 1% above the latest rate established at the weekly tender for 91-day treasury bills auctioned every Thursday. On November 20, 1986, the Bank Rate was 8.47%.

Purchase and resale agreements (PRA) are arrangements under which the Bank of Canada provides short-term accommodations as a lender of last resort to investment dealers who are money market "jobbers". From May 12, 1974 to March 12, 1980 the PRA rate was 1/4 of 1% per annum above the average rate on 91-day treasury bills at the latest weekly tender, subject to a minimum of Bank Rate minus 3/4 of 1% and a maximum of Bank Rate plus 1/2 of 1%. Effective March 13, 1980 the rate at which the Bank of Canada has entered into these agreements has been the Bank Rate.

Assets and liabilities of the Bank of Canada at December 31, 1981-85 are shown in Table 18.2. The Bank is not required to maintain gold or foreign exchange reserves against its liabilities.

Although the Bank of Canada operates with a large measure of independence, this does not mean that the government has been relieved of the ultimate responsibility for the general thrust of monetary policy. The Bank of Canada Act provides for regular consultation between the governor of the Bank of Canada and the Finance Minister as well as for a formal procedure whereby, in the event of a disagreement between the government and the Central Bank which cannot be resolved, the government may, after consultation, issue a directive to the Bank of Canada on the monetary policy to follow. Any such directive must be in writing, in specific terms, and applicable for a specified period. It must be published immediately in the *Canada Gazette* and tabled in Parliament. This provision

of the act makes it clear that the government must take ultimate responsibility for monetary policy but that the Central Bank is in no way relieved of its responsibility so long as a directive is not in effect. Such a directive has never been issued.

The Bank of Canada Act provides that the Bank shall be under the management of a board of directors composed of a governor, a deputy governor and 12 directors. The governor of the Bank is its chief executive officer and is authorized to act in connection with the conduct of the Bank's business in all matters not specifically reserved to the board or to its executive committee. The directors are appointed for three-year terms by the Finance Minister with the approval of the Governor-in-Council. The directors, in turn, appoint the governor and deputy governor for seven-year terms, also with approval of the Governor-in-Council. The deputy minister of finance sits on the board but does not have a vote. Between its meetings, an executive committee composed of the governor, deputy governor, two to four directors and the deputy minister of finance (without a vote) acts for the board; it meets once a week.

The head office of the Bank of Canada is in Ottawa. It has agencies in Halifax, Saint John, Montreal, Ottawa, Toronto, Winnipeg, Regina, Calgary and Vancouver and is represented by other institutions in St. John's and Charlottetown. In addition there are representatives of head office departments in Montreal, Toronto, Edmonton and Vancouver.

### 18.1.2 Currency

When the Bank of Canada began operations in 1935 it assumed liability for Dominion notes outstanding. These were gradually replaced in public circulation and partly replaced in cash reserves by the Central Bank's legal tender notes. Bank of Canada notes thus replaced chartered bank notes as the issue of the latter was reduced. Further restrictions introduced by the 1944 revision of the Bank Act cancelled the right of chartered banks to issue or reissue notes after January 1, 1945, and in January 1950 the chartered banks' liability for such of their notes issued for circulation in Canada as then remained outstanding was transferred to the Bank of Canada with a concurrent adjustment to the banks' deposits at the Bank of Canada.

Bank of Canada note liabilities for the years 1981-85 are given in Table 18.3. Note circulation in public hands as at December 31, 1985 amounted to \$13.3 billion, compared to \$12.2 billion in 1984 and \$11.6 billion in 1983. Bank of Canada statistics concerning currency and chartered bank deposits are given in Table 18.4.

### 18.1.3 Coinage

Under the Currency and Exchange Act (RSC 1970, c.C-39), gold coins may be issued in the denomination of \$5, \$10, \$20, \$50 and \$100; and subsidiary coins in denominations of \$1, 50 cents, 25 cents, 10 cents, five cents and one cent.

Table 18.5 gives figures for the production of Canadian circulating coins. Receipts of gold bullion at the Royal Canadian Mint, gold refined and investment coins produced are given in Table 18.6.

The Ottawa Mint, established as a branch of the Royal Mint under the United Kingdom Coinage Act of 1870, was opened on January 2, 1908. On December 1, 1931, by an act of the Canadian Parliament it became the Royal Canadian Mint and operated as a branch of the Department of Finance. The Mint was established as a Crown corporation in 1969 by the Government Organization Act of 1969 to allow for a more industrial type of organization and for flexibility in producing coins of Canada and other countries; to buy, sell, melt, assay and refine gold and precious metals; and to produce medals, plaques and other devices. The Mint reports to Parliament through the Minister of Supply and Services.

In December 1971, a Cabinet decision was made to locate a plant in Winnipeg for the mass production of coins. The plant was officially opened on April 30, 1976. It supplies all of Canada's circulating coins and produces coinage for foreign countries that lack minting capacity. The Ottawa plant of the Royal Canadian Mint produces collectors' coins, medals, plaques and other devices and refines Canadian gold.

### 18.1.4 Chartered banks

Canada's chartered banks operate under the Bank Act which regulates certain internal aspects of bank operations such as auditing accounts, issuing stock, setting aside reserves and similar matters. In addition, the Bank Act generally provides for the supervision of the banks by the Inspector General of Banks, a government-appointed official. The act is revised at approximately 10-year intervals; the latest revision was enacted in December 1980. Under the revised Bank Act, foreign banks are permitted to incorporate subsidiaries by letters patent. The banking system at October 31, 1986 consisted of 10 Canadian-owned banks which have been chartered by Parliament, and 55 foreign-owned banks which have received their letters patent. The banks operated 7,020 banking offices in Canada including 168 offices of the foreign bank subsidiaries.

Among the foreign banks with subsidiaries in Canada, 43 had head offices in Toronto as at October 1986. These included 15 banks from the United States, five from the United Kingdom, five from Japan, three each from Switzerland and Israel, two each from Italy and the Federal Republic of Germany, and one each from France, Spain, India, Taiwan, Singapore, the Netherlands, Korea and Australia.

Montreal had headquarters for banks from France, the United States, Greece and Luxembourg. Vancouver had head offices for banks from Hong Kong, Japan and Korea.

Canadian banks generally accept various types of deposits from the public including accounts payable on demand, both chequing and non-chequing notice deposits, and fixed-term deposits. In addition to holding a portfolio of securities, they typically make loans under various conditions for commercial, industrial, agricultural, and consumer purposes. Under the current revision to the Bank Act, banks may also carry out certain types of leasing and factoring business through subsidiaries. Banks also generally deal in foreign exchange, receive and pay out bank notes, and provide safekeeping facilities.

Chartered bank financial statistics for recent years are given in Tables 18.7 - 18.10; month-end data are available in the *Bank of Canada Review*.

### 18.1.5 Federal Business Development Bank

The Federal Business Development Bank was established by an act of Parliament in 1974 as a federal Crown corporation to succeed the Industrial Development Bank. Under the act, which came into force in October 1975, this bank assists the development of new or existing business enterprises in Canada by providing financial and management services. It supplements such services available from other sources and it gives particular attention to the needs of smaller businesses.

It extends financial help in various forms to new or existing businesses of almost every type which are unable to obtain required financing from other sources on reasonable terms and conditions. To qualify for this financing, a business should have investment by others to ensure their continuing commitment to the business which should have reasonable expectation of success.

The bank's management counselling service can help small businesses improve their methods. This service, supplementing counselling services available from the private sector, makes available the experience of retired business persons.



To help improve management skills in small businesses, the bank conducts management training seminars in smaller communities across Canada. It publishes booklets on a wide range of topics pertaining to the management of small business and provides information about assistance programs for small business sponsored by the federal government and others.

The head office is in Montreal; there are five regional offices and 77 branch offices across Canada. Some 98% of the loans made by the bank are approved at the branch or regional offices.

### 18.1.6 Other banking institutions

In addition to the savings departments of the chartered banks and of trust and loan companies, there are provincial government financial institutions in Ontario and Alberta, and the Montreal City and District Savings Bank in Quebec, established under federal legislation and reporting monthly to the Department of Finance. The Province of Ontario Savings Office, in operation since 1922, has branches throughout the province. Province of Alberta Treasury branches, established in 1938, provide all banking services and are authorized lending agents for farm improvement loans and small business loans guaranteed by the federal government. The Montreal City and District Savings Bank was founded in 1846 and has operated under a federal charter since 1871. Revisions in 1980 to the Quebec Savings Banks Act expanded the business powers of the bank, enabling it to branch outside of the province of Quebec and to engage in a wider range of lending and borrowing activities.

**Credit unions.** Co-operative credit unions also encourage savings and extend loans to their members. The first credit union in Canada was founded in Lévis, Que. in 1900 to promote thrift by encouraging saving and to provide loans to members who could not get credit elsewhere or could get it only at high interest rates. For many years growth was slow; in 1911, when the first figures were available, assets amounted to \$2 million and by 1940 they were only \$25 million. However, since that time there has been a spectacular increase. The first credit union legislation was passed in Nova Scotia in 1932 followed by legislation in Manitoba and Saskatchewan in 1937 and in Ontario and British Columbia in 1938.

Credit unions are under provincial legislation. Almost all local credit unions in each province belong to central credit unions operating within the province. The number of chartered local

credit unions in Canada at the end of 1985 was 3,125. They reported total assets of \$44.0 billion. Quebec, with assets of \$21.6 billion, accounted for 49% of assets of all credit unions in Canada.

Outstanding loans extended by local credit unions at year end increased 10.3% in 1985 over 1984 to reach \$33.8 billion. Assets at \$44.0 billion increased 8.4% and deposit liabilities at \$38.5 billion increased 9.9% over 1984.

There were 16 central credit unions in 1985. Their main functions are to provide member local credit unions with financial and other services; to assist locals to increase the efficiency of their operations; and to extend the locals' usefulness and effectiveness to members. Most centrals also admit co-operatives as members. Total assets of the centrals increased 7.6% to \$10.8 billion over the 1984 total of nearly \$10.1 billion. The Canadian Co-operative Credit Society serves as the central organization for provincial centrals outside Quebec and the Confédération des Caisses Populaires et d'Économie Desjardins du Québec serves the same function in Quebec.

Most funds are invested in securities and are financed by demand and term deposits from local credit union members. The combined total assets of local and central credit unions were nearly \$55 billion at the end of 1985.

## 18.2 Other financial institutions

### 18.2.1 Trust and mortgage loan companies

Trust and mortgage loan companies are registered with either federal or provincial governments. They operate under the federal Loan Companies Act (RSC 1970, c.L-12) and the Trust Companies Act (RSC 1970, c.T-16), or under the corresponding provincial legislation.

Trust companies operate as financial intermediaries in two areas: banking and fiduciary. Under the banking function, trust corporations can accept funds in exchange for their own credit instruments such as trust deposits and guaranteed investment certificates. This aspect of its business is often referred to as the guaranteed funds portion and differs little from the savings business of chartered banks.

Trust companies are the only corporations in Canada with power to conduct fiduciary business. In this capacity they act as trustees for pension funds; registrars and transfer agents for corporate share issues; trustees for corporate debt issues; and administrators of estates, trusts and agencies.



Mortgage loan companies may also accept deposits and issue both short-term and long-term debentures. The investment of these funds is spelled out specifically in the acts under which they are regulated. Most of the funds are invested in mortgages secured by real estate.

Trust and mortgage loan companies were established and grew rapidly under provincial legislation in the late 19th and early 20th centuries. Some companies were chartered by special acts of Parliament but it was not until 1914 that the federal government began to regulate trust and mortgage loan companies registered under its acts. The federal superintendent of insurance regulates the federal companies and also, by arrangement with the provinces, trust and mortgage loan companies incorporated in Nova Scotia and trust companies incorporated in Prince Edward Island and Manitoba. Companies must be licensed by each province in which they wish to operate.

Although there may be some differences among the federal and provincial acts, broad lines of the legislation are common. In their financial intermediary business the companies have the power to borrow or, in the case of trust companies, to accept funds in guaranteed accounts subject to maximum permitted ratios of these funds to shareholders' equity. The funds may be invested in specified assets which include: first mortgages secured by real property; government securities and the bonds and equity of corporations having established earnings records; loans on the security of such bonds and stocks; and unsecured personal loans. Trust and mortgage loan companies are not required to hold specified cash reserves, as are the chartered and savings banks, but there are broadly defined liquid asset requirements in a number of the acts.

In the 1920s trust and mortgage companies held about half the private mortgage business in Canada but their growth rate fell off sharply because of the effects of the depression and World War II on the mortgage business. Since then strong demand for mortgage financing has led to sustained rapid expansion.

At the end of 1985 total assets of trust companies in the Statistics Canada survey were \$64.6 billion compared with \$58.5 billion in 1984, an increase of 10%. Trust companies have been putting a high proportion of their funds into mortgages and 58% of their total assets were represented by mortgages at the end of 1985. The trust companies had \$43.2 billion in term deposits outstanding and \$14.0 billion in demand and notice deposits at the end of 1985,

accounting for 89% of total funds. About 52% of demand or savings deposits were in chequing accounts. There is considerable variety among the trust companies and a few have developed a substantial short-term business, raising funds by issuing certificates for terms as short as 30 days and also operating as lenders in the money market. But the main business of trust companies in their financial intermediary role is to channel savings into mortgages. In addition, trust companies, as at December 31, 1985, had \$133 billion under administration in estate, trust and agency accounts.

Mortgage loan companies had total assets of \$52.4 billion at the end of 1985 compared with \$45.3 billion in 1984. Their holdings of mortgages were \$42.6 billion, or 81% of total assets. To finance their investments, these companies raised \$32.6 billion of term deposits and \$1.4 billion of demand deposits and sold \$438 million of debentures.

More complete and up-to-date financial information may be found in quarterly financial statements published by Statistics Canada and the Bank of Canada, the reports of the superintendent of insurance on loan and trust companies and the reports of provincial supervisory authorities.

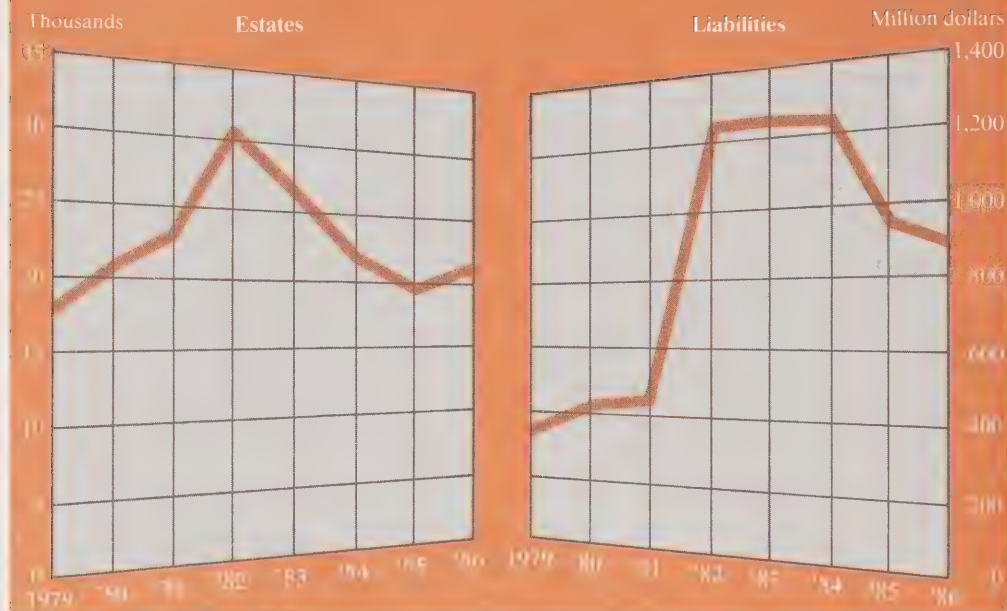
**Sales finance and consumer loans.** Statistics Canada publishes quarterly balance sheets for sales finance and consumer loan companies as a whole and does not attempt to distinguish the two groups within the industry (see *Financial Institutions*, Statistics Canada Catalogue 61-006).

An act to amend the Small Loans Act and to provide for its repeal and to amend the Criminal Code was approved by the Senate and received royal assent in December 1980 (SC 1980-81-82-83, c.43). Under this act the limits on interest rates previously set for small loans, not over \$1,500, no longer applied for new loans. Formerly, for example, lenders not licensed under the act could not charge more than 1.0% interest a month. In future the only limit to rates applicable would be set out in the Criminal Code. The new act defines the criminal rate as an effective annual rate of interest, calculated in accordance with generally accepted actuarial practices and principles, that exceeds 60% on the credit advanced.

### 18.3 Insolvency

The term "insolvency" refers to the state or condition of a person (or of a company engaged in business) when he is no longer able to pay his debts as they normally become due for payment.

Chart 18.2  
Consumer bankruptcies



**Bankruptcy** may be defined as a legal process which stays all legal actions pertaining to a debtor's debts and which, in general, involves a summary and immediate seizure of all debtor property as assets by a trustee, distribution of these assets among the estate creditors, and discharge of the debtor from future liability for most of the debts which existed at the moment of bankruptcy.

While involving essentially the same administrative principles and processes under the Bankruptcy Act, a distinction is made between a consumer bankruptcy and a commercial bankruptcy because of different conceptual objectives and the impact of provincial legislation respecting the property of an individual which is exempt from seizure in a bankruptcy. A consumer bankruptcy is viewed primarily as a mechanism for providing relief to a financially overburdened debtor from legal actions such as the seizure of assets and the imposition of wage garnishments. A commercial bankruptcy is usually more complex and it is primarily a mechanism for the orderly and equitable distribution of assets of an insolvent company to free them for eventual reintegration into the economy.

Responsibility for the supervision of the bankruptcy process rests with a Superintendent of Bankruptcy appointed by the Governor-in-Council who oversees the provisions of the Bankruptcy Act as it applies to trustees in bankruptcy, creditors and bankrupts. The Superintendent of Bankruptcy is also the Director of the bankruptcy branch of Consumer and Corporate Affairs Canada. His prime responsibility is to promote confidence in and to protect the integrity of the credit system through the regulation of the bankruptcy process and through the systematic detection and prosecution of fraudulent practices and other abuses.

Operational responsibilities of the Superintendent of Bankruptcy include licensing and supervision of all trustees in bankruptcy, examining bankrupt estates for possible offences under the Bankruptcy Act or the Criminal Code, maintaining a record of all bankruptcies and of related statistical information and generally supervising a consumer bankruptcy program. The Superintendent has representatives in major cities across Canada from whom more detailed information concerning bankruptcy and insolvency may be obtained.

**Receiverships** constitute the other major consequence of aggravated commercial insolvency and occur when a receiver is appointed to take possession or control under a security agreement or following a court order of all or part of the property of a debtor.

A receivership is precipitated by a secured creditor in an effort to protect his investment. In the majority of receiverships, as with many commercial bankruptcies, unsecured creditors receive little or nothing after the secured creditors realize on their security. (See Tables 18.20 to 18.23.)

## 18.4 Insurance

Insurance business is transacted in Canada by about 900 companies and societies. Details of the classes of insurance each company or society is authorized to transact and statistical information may be found in the published reports of individual superintendents of insurance for the provinces. Financial statistics of the federally registered companies and fraternal benefit societies are published in the annual report of the federal superintendent.

### 18.4.1 Life insurance

Total life insurance in force in Canada at the end of 1985 amounted to \$689 billion (\$631 billion in 1984). There were 156 companies, three less than in 1984, registered by the federal insurance department to transact life insurance (63 Canadian, 11 British and 82 foreign). There were also 39 registered fraternal benefit societies (16 Canadian and 23 foreign).

Table 18.24 gives figures for selected years since 1880 for amounts of new insurance effected and an analysis of amounts in force at the end of the year. Table 18.25 compares newly effected written business and total amounts in force for 1982-85.

Net insurance premiums written in 1985 totalled \$4.3 billion compared to \$3.9 billion in 1984 and \$3.7 billion in 1983. Table 18.26 gives a provincial analysis of the premium income from 1983 to 1985 on a direct written basis only.

The major categories of assets and related liabilities of federally registered life insurance companies are given in Table 18.27. The major sources of income and selected expenditures are given in Table 18.28.

**Average amounts owned.** Excluding persons not covered by life insurance, the average amount of coverage for each insured individual was about \$49,000 on December 31, 1984.

The average amount owned by each household at the end of 1984 was about \$75,100. This is quadruple the figure in 1970.

**Purchases.** During 1984, Canadians purchased \$110.3 billion of life insurance, over eight times the 1970 amount.

**Ownership by nationality of company.** Of the \$679 billion of life insurance owned by Canadians at the end of 1984, 80.2% was with Canadian-incorporated companies, 14.0% with US companies, 4.3% with British companies and 1.5% with companies incorporated in other parts of Europe. Federally registered companies provided 93% of the total life insurance in force.

For registered fraternal benefit societies, certificates in force in Canada totalled \$4.3 billion at the end of 1985 compared to \$4.0 billion at the end of 1984 and \$3.6 billion at the end of 1983. Premiums written in Canada totalled \$112 million during 1985, of which \$79 million was applicable to Canadian societies and \$33 million to foreign societies. In 1984 with \$95 million in premiums written, \$71 million was applicable to Canadian societies and \$24 million to foreign societies. Canadian societies also reported \$178 million in premiums written outside Canada in 1984 and \$217 million in 1985. In 1983 premiums written totalled \$84 million in Canada and in 1982 totalled \$70 million. A total of \$65 million went to Canadian societies in 1983 and \$18 million to foreign societies, while \$180 million in policies written outside Canada were reported by Canadian societies.

### 18.4.2 Property and casualty insurance

Direct premiums written in Canada for property and casualty insurance totalled \$11.2 billion in 1985, up from \$10.1 billion in 1984 (Table 18.30).

At the end of 1985, there were 244 companies (104 Canadian, 23 British and 117 foreign) registered by the federal insurance department to transact property and casualty insurance. At the end of 1984 there were 243 companies (101 Canadian, 23 British and 119 foreign).

For federally registered companies, premium income on a net basis totalled \$7.9 billion in 1985 and \$6.9 billion in 1984.

Property insurance net premiums written in Canada during 1985 were \$2.9 billion and in 1984 were nearly \$2.6 billion (Table 18.29). Net claims were \$1.9 billion in 1985, up \$243 million from 1984. Net premiums for automobile insurance written in Canada during 1985 were \$3.7 billion and in 1984 were \$3.3 billion. Net claims incurred were \$3.3 billion in 1985, up \$542 million from 1984.



Personal accident and sickness insurance net premiums written in Canada during 1985 were \$268 million and during 1984 were \$242 million. Net premiums earned in 1985 were \$255 million and net claims incurred were \$206 million, a claims ratio of 77%. In 1984 net premiums earned were nearly \$238 million and net claims incurred were \$180 million, a claims ratio of 76%. Net premiums for liability insurance written in Canada in 1985 were \$729 million and in 1984 were \$486 million. Net premiums earned in 1985 were \$606 million and net claims were \$562 million, a claims ratio of 93%. In 1984 net premiums earned were \$461 million and net claims were \$492 million, a claims ratio of 107%.

The major categories of assets and related liabilities of federally registered property and casualty insurance companies are given in Table 18.31.

Underwriting experience in Canada over the past years has ranged from losses of \$12.3 million in 1978 to a loss of \$1,302.5 million in 1985 (Table 18.32).

#### 18.4.3 Fire losses

Fire losses in Canada reached \$929.5 million in 1984, up from \$816.0 million in 1983. The total number of fires was 70,730 in 1984, a decrease from 70,953 in 1983. The number of children who died from fire was 133 in 1984, up from 116 in 1983 (Table 18.34).

The fire record reflected an increase in fire deaths for 1984, breaking the three-year downward trend. Fire injuries have also increased from 1983. There were 598 fire fatalities in 1984, up from 539 in 1983. The death rate for 1984 was 2.38 per 100,000 population. Injuries increased to 4,103 in 1984 from 4,008 in 1983 while property losses increased 14%.

## 18.5 Government insurance

### 18.5.1 Deposit insurance

The Canada Deposit Insurance Corporation was established in 1967 to provide, for persons having deposits with a member of the corporation, insurance against the loss of deposits up to a maximum of \$60,000 for any one depositor. Membership in the corporation is obligatory for chartered banks, Quebec savings banks and those federally incorporated loan and trust companies that accept deposits from the public. Provincially incorporated loan and trust companies that accept deposits from the public are eligible to apply for membership if they have the consent of the province of incorporation. The definition of

deposit, set out in a schedule to the Canada Deposit Insurance Corporation Act, might be summarized as money received by a member institution that is repayable on demand or notice and money that is repayable on a fixed date within five years from the date of deposit or on the anniversary date five years after the date of deposit. Deposits not payable in Canada or in Canadian currency are not insured.

### 18.5.2 Provincial government insurance

**Manitoba.** The Manitoba Public Insurance Corporation is a Crown corporation established under the Automobile Insurance Act. The act, now known as the Manitoba Public Insurance Corporation Act, provides for establishment of a universal, compulsory automobile insurance plan and of other plans of automobile insurance within the province. The corporation started operations in November 1971. Revenue for the plan comes from two sources — premiums on drivers' licences and premiums on vehicles. Premiums are also based on such factors as year, make, model and use of the car, and rating territory, based on the address of the vehicle owner. Since mid-1975, the corporation has offered a wide range of non-compulsory general insurance coverages in competition with private insurance companies.

**Saskatchewan.** Saskatchewan Government Insurance (SGI), a provincial Crown corporation, was established in 1944 as a general insurer with the principal purposes of providing insurance coverage at reasonable rates and boosting the provincial economy by generating investment income and premium tax revenue. It became one of the largest casualty/property insurance companies in Canada.

SGI offers comprehensive home and tenant policies and most other personal lines of insurance, excluding sickness and life. Commercial property insurance, business interruption insurance, commercial auto coverage, and liability insurance are available for businesses.

SGI also administers the Automobile Accident Insurance Act (AAIA) on behalf of the province. This provides Saskatchewan motorists with comprehensive universal insurance coverage, including \$200,000 third party liability, medical and disability coverage (plus loss of income) and collision coverage. This is the minimum required by law; extended coverage may be purchased from SGI or any other insurer. SGI competes directly with other insurers for automobile insurance beyond the compulsory coverages.



**Sources**

- 18.1 - 18.1.2 Financial Institution Division, Bank of Canada.
- 18.1.3 Communications, Royal Canadian Mint.
- 18.1.4 Financial Institution Division, Bank of Canada; The Canadian Bankers' Association; Industrial Organization and Finance Division, Statistics Canada.
- 18.1.5 Federal Business Development Bank.
- 18.1.6 The Montreal City and District Savings Bank; Industrial Organization and Finance Division, Statistics Canada.
- 18.2.1 Industrial Organization and Finance Division, Statistics Canada.
- 18.3 Office of the Superintendent of Bankruptcy, Department of Consumer and Corporate Affairs.
- 18.4 - 18.4.2 Statement Analysis and Publications Section, Department of Insurance.
- 18.4.3 Office of the Fire Commissioner of Canada, Department of Labour.
- 18.5 Canada Deposit Insurance Corporation; The Manitoba Public Insurance Corporation; Saskatchewan Government Insurance.

## TABLES

.. not available  
 . not appropriate or not applicable  
 — nil or zero  
 -- too small to be expressed

e estimate  
 p preliminary  
 r revised  
 certain tables may not add due to rounding

### 18.1 Bank rates from August 27, 1980 to October 29, 1986

Date of change	% per annum	Date of change	% per annum	Date of change	% per annum
Aug. 27, 1980	10.45	Sept. 29, 1982	13.18	Oct. 31, 1984	11.71
Sept. 24, 1980	11.02	Oct. 27, 1982	11.53	Nov. 28, 1984	10.78
Oct. 29, 1980	11.76	Nov. 24, 1982	10.87	Dec. 26, 1984	10.16
Nov. 26, 1980	13.06	Dec. 29, 1982	10.26	Jan. 30, 1985	9.66
Dec. 31, 1980	17.26	Jan. 26, 1983	9.81	Feb. 27, 1985	10.95
Jan. 28, 1981	17.00	Feb. 23, 1983	9.43	Mar. 27, 1985	11.18
Feb. 25, 1981	17.14	Mar. 30, 1983	9.42	Apr. 24, 1985	9.75
Mar. 25, 1981	16.59	Apr. 27, 1983	9.46	May 29, 1985	9.59
Apr. 29, 1981	17.40	May 25, 1983	9.38	June 26, 1985	9.57
May 27, 1981	19.06	June 29, 1983	9.42	July 31, 1985	9.31
June 24, 1981	19.07	July 27, 1983	9.51	Aug. 28, 1985	9.20
July 29, 1981	19.89	Aug. 31, 1983	9.57	Sept. 25, 1985	9.31
Aug. 26, 1981	21.03	Sept. 28, 1983	9.52	Oct. 30, 1985	8.77
Sept. 30, 1981	19.63	Oct. 26, 1983	9.45	Nov. 27, 1985	8.98
Oct. 28, 1981	18.30	Nov. 30, 1983	9.63	Dec. 25, 1985	9.49
Nov. 25, 1981	15.40	Dec. 28, 1983	10.04	Jan. 29, 1986	10.33
Dec. 30, 1981	14.66	Jan. 25, 1984	9.98	Feb. 26, 1986	11.84
Jan. 27, 1982	14.72	Feb. 29, 1984	10.04	Mar. 26, 1986	10.44
Feb. 24, 1982	14.74	Mar. 28, 1984	10.76	Apr. 30, 1986	9.27
Mar. 31, 1982	15.11	Apr. 25, 1984	10.82	May 28, 1986	8.43
Apr. 28, 1982	15.32	May 30, 1984	11.60	June 25, 1986	8.84
May 26, 1982	15.32	June 27, 1984	11.98	July 30, 1986	8.63
June 30, 1982	16.58	July 25, 1984	13.24	Aug. 27, 1986	8.58
July 28, 1982	15.60	Aug. 29, 1984	12.39	Sept. 24, 1986	8.63
Aug. 25, 1982	14.26	Sept. 26, 1984	12.28	Oct. 29, 1986	8.62

On March 10, 1980 the Bank of Canada announced that beginning on March 13, 1980 and until further notice, its bank rate would be set at 1/4 percentage point above the latest average rate established in the weekly tender for 91-day treasury bills issued by the Government of Canada. The bank rates shown in the above table are as at the last Wednesday of the month.

### 18.2 Assets and liabilities of the Bank of Canada, as at Dec. 31, 1981-85 (million dollars)

Item	1981	1982	1983	1984	1985
<b>Assets</b>					
Government of Canada direct and guaranteed securities					
Treasury bills	5,246	2,426	2,763	3,483	3,984
Other securities three years and under	4,185	4,697	4,576	4,654	3,460
Other securities over three years	7,484	8,248	9,688	9,015	8,224
Other bills	—	—	—	—	—
Advances to members of the Canadian Payments Association	38	143	25	50	3,469
Investment in the Industrial Development Bank	—	—	—	—	—
Other investments	3	1,241	274	476	3
Foreign currency deposits	172	264	309	187	569
All other assets	2,027	2,404	3,046	1,068	1,426
<b>Total assets</b>	<b>19,154</b>	<b>19,423</b>	<b>20,681</b>	<b>18,934</b>	<b>21,135</b>
<b>Liabilities</b>					
Notes in circulation					
Held by chartered banks	1,998	2,228	2,556	2,986	3,371
All other	9,638	10,491	11,607	12,250	13,301
Canadian dollar deposits					
Government of Canada	384	81	90	55	313
Chartered banks	5,278	4,838	3,446	2,772	2,201
Other members of the Canadian Payments Association	—	—	147	37	206
Other	190	163	150	231	169
Foreign currency liabilities	52	81	83	13	372
All other liabilities	1,614	1,541	2,601	591	1,202
<b>Total liabilities</b>	<b>19,154</b>	<b>19,423</b>	<b>20,681</b>	<b>18,934</b>	<b>21,135</b>

**18.3 Bank of Canada note liabilities, as at December 31, 1981-85 (thousand dollars)**

Denomination	1981	1982	1983	1984	1985
<b>Bank of Canada notes</b>					
\$1	279,599	288,428	298,799	308,315	323,196
\$2	218,099	224,803	238,285	244,265	255,218
\$5	411,053	421,784	447,359	479,537	511,713
\$10	1,258,526	1,231,806	1,246,433	1,222,917	1,217,986
\$20	5,002,866	5,360,811	5,824,801	6,120,128	6,499,277
\$25	46	46	46	46	46
\$50	1,225,771	1,450,959	1,685,124	1,928,449	2,225,079
\$100	2,896,431	3,332,274	3,894,405	4,325,989	4,899,910
\$500	24	24	24	24	24
\$1,000	330,312	394,968	514,936	593,469	726,669
<b>Total</b>	<b>11,622,726</b>	<b>12,705,903</b>	<b>14,150,212</b>	<b>15,223,139</b>	<b>16,659,118</b>
<b>Note issues in process of retirement</b>	<b>12,878</b>	<b>12,879</b>	<b>12,876</b>	<b>12,875</b>	<b>12,874</b>
<b>Total, Bank of Canada note liabilities</b>	<b>11,635,604</b>	<b>12,718,782</b>	<b>14,163,088</b>	<b>15,236,012</b>	<b>16,671,992</b>
<b>Held by</b>					
Chartered banks	1,997,682	2,228,156	2,556,293	2,986,290	3,370,820
Others	9,637,922	10,490,626	11,606,795	12,249,722	13,301,172

**18.4 Canadian dollar currency and chartered bank deposits, as at December 31, 1974-85 (million dollars)**

Year	Currency outside banks			Chartered bank deposits				Total currency and chartered bank deposits <sup>1</sup>		
	Notes	Coin	Total	Personal savings deposits	Government of Canada deposits	Other deposits <sup>1</sup>	Total <sup>1</sup>	Total including government deposits	Held by general public	
									Including personal savings deposits	Excluding personal savings deposits
1974	5,213	656	5,868	29,789	4,682	21,784	56,255	62,124	57,442	27,653
1975	6,079	708	6,787	33,237	3,663	27,359	64,259	71,046	67,383	34,146
1976	6,573	760	7,333	40,478	3,103	31,842	75,423	82,756	79,653	39,175
1977	7,268	826	8,094	44,948	4,733	36,579	86,259	94,353	89,621	44,673
1978	8,075	890	8,964	51,528	6,466	42,023	100,017	108,981	102,516	50,988
1979	8,514	954	9,468	64,216	2,418	51,288	117,922	127,390	124,972	60,756
1980	9,377	1,024	10,401	74,945	4,093	52,838	131,876	142,277	138,184	63,239
1981 <sup>2</sup>	9,638	1,081	10,719	92,513	7,138	67,355	167,006	177,725	170,587	78,074
1982	10,491	1,142	11,633	100,037	6,906	66,800	173,743	185,376	178,470	78,433
1983	11,607	1,202	12,809	101,485	6,057	62,272	169,814	182,623	176,566	75,081
1984	12,250	1,259	13,509	109,468	2,797	64,527	176,791	190,300	187,503	78,035
1985	13,301	1,321	14,622	119,063	4,350	63,327	186,740	201,362	197,012	77,949

<sup>1</sup> Less total float (cheques and other items in transit).<sup>2</sup> Effective November 1981, chartered bank data are reported on a consolidated basis.**18.5 Production of circulating coins, 1978-85 (thousand pieces)**

Year	\$1.00 (Ni)	\$1.00 (Ni) Commemorative	\$0.50	\$0.25	\$0.10	\$0.05	\$0.01
1978	2,824	...	3,554	169,270	174,524	139,382	843,879
1979	3,012	...	3,221	183,977	218,250	148,677	698,712
1980	3,191	...	2,089	121,475	136,696	118,247	1,040,459
1981	2,779	...	2,589	131,584	123,913	99,108	1,209,469
1982	3,392	11,812	2,877	167,414	93,953	105,532	876,029
1983	2,268	...	1,205	13,482	111,465	32,756	999,955
1984	1,371	7,009	1,664	119,946	118,680	100,088	912,222
1985	2,957	...	2,027	155,802	145,410	110,400	710,750

**18.6 Refinery operations, gold, 1978-85**

Year	Deposits ('000 oz t)		Refined ('000 oz t)		Bullion investment coins produced ('000 pieces)			
	All sources	Canadian mines	All sources	Canadian mines	1.0 oz (\$50)	0.50 oz (\$20)	0.25 oz (\$10)	0.10 oz (\$5)
1978	1,559	1,258	1,277	1,032	—	—	—	—
1979	3,121	1,202	2,756	991	1,000	—	—	—
1980	3,541	1,131	2,957	922	1,500	—	—	—
1981	3,227	1,140	2,587	934	750	—	—	—
1982	3,796	1,585	3,148	1,248	707	—	244	464
1983	3,838	1,925	3,072	1,559	843	—	309	304
1984	4,464	2,063	3,761	1,678	1,068	—	242	—
1985	5,215	2,388	4,367	1,956	1,908	—	620	400

**18.7 Chartered banks, cash and secondary reserves, 1974-85 (million dollars)**

Year	Statutory deposits (excluding adjustments for previous periods)		Cash reserves		Secondary reserves
	Canadian dollar	Foreign currency	Statutory coin and Bank of Canada notes	Bank of Canada deposits	
1974	49,814	—	888	2,106	4,174
1975	60,225	—	985	2,654	3,672
1976	69,642	—	1,071	2,911	4,244
1977	80,496	—	1,161	3,411	4,568
1978	91,299	—	1,250	3,997	5,455
1979	107,162	—	1,361	4,564	6,330
1980	123,753	—	1,499	4,983	7,393
1981	137,568	6,525	1,748	5,403	8,884
1982	145,151	6,324	1,939	4,917	8,450
1983	135,447	6,271	2,107	4,075	12,697
1984	126,905	6,534	2,436	3,053	12,070
1985	130,193	7,085	2,742	2,650	12,361

Statutory deposits and coin, and Bank of Canada notes are averages of the months in the year shown; the monthly levels are averages of the four consecutive Wednesdays ending with the second last Wednesday of the previous month until January 1981. Effective February 1981, monthly levels are averages of the four consecutive Wednesdays ending with the second Wednesday of the previous month. Bank of Canada deposits and secondary reserves are also averages of the months in the year shown; however, the monthly levels are calculated as an average of the juridical days in that month. From February 1968 to January 1981 the required primary cash reserve ratios were 12% for Canadian dollar demand deposits and 4% for Canadian dollar notice deposits. As of Feb. 1, 1981, the required ratios were 12% for reservable Canadian dollar demand deposits, 2% for reservable Canadian dollar notice deposits plus 2% for the amount by which a bank's reservable Canadian dollar notice deposits exceed \$500 million, and 3% for reservable foreign currency deposits. The secondary reserve requirement was set as follows: 8.5% in December 1971, 8% in January 1972, 7% in December 1974, 6% in January 1975, 5.5% in March 1975, 5% in February 1977 and 4% in December 1981.

**18.8 Classification of chartered bank deposit liabilities payable to the public in Canada and in Canadian currency, as at April 30, 1983-86 (number of accounts)**

Deposit accounts of the public of:	1983			1984		
	Personal savings deposit accounts	Other deposit accounts of the public	Total deposit accounts of the public	Personal savings deposit accounts	Other deposit accounts of the public	Total deposit accounts of the public
Less than \$1,000	..	..	..	18,125,457	5,636,882	23,762,339
\$1,000 or over but less than \$10,000	9,409,727	1,974,338	11,384,065	9,774,542	1,974,515	11,749,057
\$10,000 or over but less than \$100,000	2,621,246	423,388	3,044,634	2,673,400	443,494	3,116,894
\$100,000 or over	64,102	82,041	146,143	58,337	74,449	132,786
Total deposits	29,839,212	8,646,924	38,486,136	30,631,736	8,129,340	38,761,076
	1985			1986		
	Personal savings deposit accounts	Other deposit accounts of the public	Total deposit accounts of the public	Personal savings deposit accounts	Other deposit accounts of the public	Total deposit accounts of the public
Less than \$1,000	18,207,098	5,014,063	23,221,161	18,436,118	4,680,023	23,116,141
\$1,000 or over but less than \$10,000	10,277,359	1,872,952	12,150,311	10,236,025	1,811,621	12,047,646
\$10,000 or over but less than \$100,000	2,947,644	453,289	3,400,933	3,126,822	460,548	3,587,370
\$100,000 or over	70,485	72,073	142,558	74,444	71,953	146,397
Total deposits	31,502,586	7,412,377	38,914,963	31,873,409	7,024,145	38,897,554



**18.9 Total Canadian-owned chartered banks, consolidated statement of revenue and expense, 1981-85 (million dollars)**

Item	Financial years ending in				
	1981	1982	1983	1984	1985 <sup>1</sup>
Interest income					
Loans, excluding leases	35,975.5	39,636.5	29,715.1	30,372.8	30,429.9
Lease financing	233.4	280.0	285.6	255.0	228.7
Securities	3,060.4	3,122.3	2,795.0	3,222.8	3,570.5
Deposits with banks	5,608.0	5,658.1	3,733.0	4,516.9	4,579.7
Total including dividends	44,877.3	48,696.9	36,528.7	38,367.5	38,808.8
Interest expense					
Deposits	37,319.4	40,371.7	26,929.0	28,720.3	27,926.5
Bank debentures	289.9	491.0	475.4	498.8	536.6
Liabilities other than deposits	275.0	336.0	267.1	228.1	255.7
Total	37,884.3	41,198.7	27,671.5	29,447.2	28,718.8
Net interest income	6,993.0	7,498.2	8,857.2	8,920.3	10,090.0
Less provision for loan losses	-864.6	-1,397.5	-1,710.6	-2,003.2	-2,339.8
Net interest income after provision for loan losses	6,128.4	6,100.8	7,146.6	6,917.1	7,750.2
Other income	1,821.6	2,079.9	2,340.1	2,627.1	3,135.4
Net interest and other income	7,950.0	8,180.6	9,486.7	9,544.2	10,885.6
Non-interest expense					
Salaries	3,199.1	3,689.4	3,756.9	3,931.1	4,321.4
Pension contribution and other staff benefits	315.4	352.0	365.7	341.9	381.4
Premises and equipment, including depreciation	943.9	1,113.2	1,220.2	1,307.5	1,462.9
Other	1,262.0	1,396.0	1,421.4	1,540.5	1,749.7
Total	5,720.5	6,550.5	6,764.2	7,121.0	7,915.4
Net income before provision for income taxes	2,229.4	1,630.1	2,722.5	2,423.2	2,970.2
Provision for income taxes	-464.9	-104.9	-813.3	-629.5	-860.7
Net income before minority interest in subsidiaries and extraordinary items	1,764.5	1,525.3	1,909.2	1,793.7	2,109.5
Minority interest in subsidiaries	-15.6	-12.7	-13.0	-9.8	-8.8
Extraordinary items	4.7	—	36.7	—	5.7
Net income	1,753.6	1,512.5	1,932.9	1,783.9	2,106.4

Note: Since 1965 all chartered banks have ended their years on October 31. The consolidated statements of revenue and expense and of shareholders' equity and appropriations for contingencies are based on the format prescribed in Schedules L, M and N of the 1980 Bank Act. The operations of all majority-owned subsidiaries are fully consolidated into income with the minority interest shown separately. Where a bank holds at least 20% but not more than 50% of a company's voting shares, the bank takes into its income an amount equivalent to its share of that company's earnings.

<sup>1</sup> Excludes the Canadian Commercial Bank and Northland Bank.

**18.10 Total Canadian-owned chartered banks, statement of shareholders' equity and appropriations for contingencies, 1981-85 (million dollars)**

Item	Financial years ending in				
	1981	1982	1983	1984	1985 <sup>1</sup>
Capital stock					
Balance at beginning of year	647.5	1,538.8	2,885.1	3,980.4	5,690.9
Additions from capital stock issues:					
Common shares	16.9	75.8	195.8	556.9	760.5
Preferred shares	874.4	593.5	445.2	1,241.3	51.1
Transfer from contributed surplus	—	677.0	454.3	46.4	922.1
Balance at end of year	1,538.8	2,885.1	3,980.4	5,825.0	7,424.6

### 18.10 Total Canadian-owned chartered banks, statement of shareholders' equity and appropriations for contingencies, 1981-85 (million dollars) (concluded)

Item	Financial years ending in				
	1981	1982	1983	1984	1985 <sup>1</sup>
Contributed surplus					
Balance at beginning of year	1,648.6	1,770.7	1,311.8	975.9	1,116.5
Additions from capital stock issue	122.1	218.1	122.3	217.1	182.9
Transfer to capital stock	—	-677.0	-454.3	-46.4	-922.1
Transfer to retained earnings	—	—	-3.9	-4.4	—
Balance at end of year	1,770.7	1,311.8	975.9	1,142.2	377.3
General reserve					
Balance at beginning of year	31.6	25.8	25.3	—	—
Transfer from (to) retained earnings	-5.8	-0.5	-25.3	—	—
Balance at end of year	25.8	25.3	—	—	—
Retained earnings					
Balance at beginning of year	5,711.9	6,770.6	7,035.4	7,556.7	8,007.0
Prior period adjustments	0.3	49.6	0.3	-14.4	-11.8
Net unrealized foreign exchange translation gain	—	—	—	6.7	45.8
Share issue expenses, net	-10.7	-11.4	-5.4	-20.6	-6.3
Net income for year	1,753.6	1,512.5	1,932.9	1,783.9	2,106.4
Dividends:					
Common	-496.7	-558.9	-585.9	-648.0	-695.5
Preferred	-56.2	-140.5	-176.9	-252.5	-292.3
Transfer from (to) appropriations for contingencies	-269.9	-912.2	-1,048.7	-754.5	-471.9
Income taxes related to above transfer	132.7	325.1	375.8	347.6	356.5
Transfer from (to) general reserve	5.8	0.5	25.3	—	—
Transfer from contributed surplus	—	—	3.9	4.4	—
Balance at end of year	6,770.6	7,035.4	7,556.7	8,009.3	9,037.9
Total shareholders' equity at end of year	10,105.9	11,257.6	12,513.0	14,976.5	16,839.8
Appropriations for contingencies					
Balance at beginning of year	864.0	1,063.8	925.1	745.2	1,001.2
Net loss experience on loans	-934.8	-2,448.4	-2,939.1	-2,473.5	-2,603.3
Provision for loan losses	864.6	1,397.5	1,710.5	2,003.2	2,339.8
Transfer from (to) retained earnings	269.9	912.2	1,048.7	754.5	471.9
Balance at end of year	1,063.8	925.1	745.2	1,029.4	1,209.6
Total shareholders' equity and appropriations for contingencies	11,169.7	12,182.6	13,258.2	16,005.9	18,049.4

See note, Table 18.9.

<sup>1</sup> Excludes the Canadian Commercial Bank and Northland Bank.

### 18.11 Branches<sup>1</sup> of chartered banks, by province, as at December 31, 1930-80 and October 31, 1983-86

Province or territory	1930	1950	1970	1980	1983	1984	1985	1986
Newfoundland	—	39	114	149	142	139	137	137
Prince Edward Island	28	23	30	34	30	30	30	30
Nova Scotia	138	144	202	247	243	243	246	248
New Brunswick	102	100	136	180	179	179	178	174
Quebec	1,183	1,164	1,524	1,524	1,273	1,276	1,259	1,264
Ontario	1,409	1,257	2,307	2,878	2,775 <sup>1</sup>	2,775	2,777	2,775
Manitoba	239	165	310	364	346	343	347	342
Saskatchewan	447	238	350	384	392	391	396	390
Alberta	304	246	521	759	814	813	791	761
British Columbia	229	294	684	865	853	843	831	823
Yukon and Northwest Territories	4	9	21	30	27	28	27	27
Canada	4,083	3,679	6,199	7,414	7,074	7,060	7,019	6,971

<sup>1</sup> Figures include sub-agencies and sub-branches in Canada receiving deposits for the banks employing them.

18.12 Branches<sup>1</sup> of individual chartered banks, by province, as at March 31, 1986

Bank	Province or territory										Canada
	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT and NWT
Bank of Alberta	—	—	—	—	—	—	—	—	3	—	3
Bank of Montreal	29	3	33	26	—	—	—	—	—	—	—
The Bank of Nova Scotia	62	9	69	53	209	463	64	62	145	154	1,192
Canadian Imperial Bank of Commerce	17	8	36	24	87	415	35	51	124	109	1,016
	—	—	—	—	178	680	78	101	181	196	1,514
National Bank of Canada	1	2	4	29	460	57	5	2	2	2	564
The Royal Bank of Canada	20	6	85	31	203	542	103	119	157	180	1,450
The Toronto-Dominion Bank	6	2	16	9	86	522	54	51	111	99	958
Western and Pacific Bank of Canada	—	—	—	—	—	—	—	—	—	2	2
ABN Bank Canada	—	—	—	—	1	1	—	—	—	1	3
ANZ Bank Canada	—	—	—	—	—	1	—	—	—	—	1
BT Bank of Canada	—	—	—	—	—	1	—	—	—	—	1
Banca Commerciale Italiana of Canada	—	—	—	—	2	4	—	—	1	—	7
Banca Nazionale del Lavoro of Canada	—	—	—	—	1	1	—	—	1	—	3
Banco Central of Canada	—	—	—	—	1	1	—	—	—	—	2
Bank of America Canada	—	—	—	—	14	14	—	—	4	10	42
Bank of Boston Canada	—	—	—	—	1	1	—	—	—	—	2
Bank of Credit and Commerce Canada	—	—	—	—	2	4	—	—	2	2	10
Bank Hapoalim (Canada)	—	—	—	—	—	1	—	—	—	—	1
Bank Leumi le-Israel (Canada)	—	—	—	—	1	2	—	—	—	—	3
The Bank of Tokyo (Canada)	—	—	—	—	—	1	—	—	1	1	3
Banque Nationale de Paris (Canada)	—	—	—	—	4	1	—	—	2	1	8
Barclays Bank of Canada	1	—	1	—	1	3	1	1	3	1	12
The Chase Manhattan Bank of Canada	—	—	—	—	1	1	—	—	1	1	4
Chemical Bank of Canada	—	—	—	—	1	1	—	—	1	1	4
Citibank Canada	—	—	—	—	2	6	—	—	1	2	11
Comerica Bank Canada	—	—	—	—	—	1	—	—	—	—	1
Continental Illinois Bank (Canada)	—	—	—	—	—	1	—	—	—	—	1
Crédit Commercial de France (Canada)	—	—	—	—	1	1	—	—	—	—	2
Crédit Lyonnais Canada	—	—	—	—	1	1	—	—	1	—	3
Crédit Suisse Canada	—	—	—	—	1	1	—	—	1	1	4
Dai-ichi Kangyo Bank (Canada)	—	—	—	—	—	1	—	—	—	—	2
Deutsche Bank (Canada)	—	—	—	—	—	1	—	—	—	—	1
Dresdner Bank Canada	—	—	—	—	—	1	—	—	—	—	1
First Interstate Bank of Canada	—	—	—	—	—	1	—	—	1	1	3
The First National Bank of Chicago (Canada)	—	—	—	—	—	1	—	—	—	—	1
Fuji Bank Canada	—	—	—	—	—	1	—	—	—	—	1
Hanil Bank Canada	—	—	—	—	—	—	—	—	2	41	43
Hongkong Bank of Canada	—	—	1	—	—	2	3	1	1	2	14
The Industrial Bank of Japan (Canada)	—	—	—	—	—	1	—	—	—	1	2
International Commercial Bank of Cathay (Canada)	—	—	—	—	—	3	—	—	—	—	3
Irving Bank Canada	—	—	—	—	—	1	—	—	—	—	1
Israel Discount Bank of Canada	—	—	—	—	—	1	—	—	—	—	1
Korea Exchange Bank of Canada	—	—	—	—	—	2	—	—	—	—	3
Lloyds Bank Canada	1	—	3	2	12	22	1	2	11	8	62
Manufacturers Hanover Bank of Canada	—	—	—	—	1	1	—	—	1	1	4
Mellon Bank Canada	—	—	—	—	—	1	—	—	—	—	1
Midland Bank Canada	—	—	—	—	—	1	—	—	1	1	3
Mitsubishi Bank of Canada	—	—	—	—	—	1	—	—	1	1	2
The Mitsui Bank of Canada	—	—	—	—	—	1	—	—	—	—	2
Morgan Bank of Canada	—	—	—	—	—	1	—	—	1	—	1
National Bank of Detroit Canada	—	—	—	—	—	3	—	—	—	—	3
National Bank of Greece Canada	—	—	—	—	3	1	—	—	—	—	4
National Westminster Bank of Canada	—	—	—	—	1	1	—	—	1	1	4
Overseas Union Bank of Singapore (Canada)	—	—	—	—	—	1	—	—	—	—	1
Paribas Bank of Canada	—	—	—	—	1	1	—	—	—	—	2
Republic National Bank of New York (Canada)	—	—	—	—	1	—	—	—	—	—	1
Sanwa Bank Canada	—	—	—	—	—	1	—	—	—	—	2
Security Pacific Bank Canada	—	—	—	—	—	1	—	—	2	1	5
Société Générale (Canada)	—	—	—	—	2	2	—	—	2	1	7
Standard Chartered Bank of Canada	—	—	—	—	1	2	—	—	1	1	5
State Bank of India (Canada)	—	—	—	—	—	1	—	—	1	—	2
Swiss Bank Corporation (Canada)	—	—	—	—	1	1	—	—	1	1	4
Union Bank of Switzerland (Canada)	—	—	—	—	—	1	—	—	—	—	1
Total	137	30	248	174	1,282	2,788	344	390	764	831	7,019

Figures include sub-agencies and sub-branches in Canada for receiving deposits.

**18.13 Assets and liabilities of the Federal Business Development Bank, as at March 31, 1982-86**

Item		1982	1983	1984	1985	1986
<b>Assets</b>						
Loans and investments	\$'000,000	1,909.9	1,759.1	1,501.9	1,466.2	1,561.6
Other assets	"	48.1	148.9	114.0	99.9	33.4
<b>Total, assets</b>	"	1,958.0	1,908.0	1,615.9	1,566.1	1,595.0
<b>Liabilities</b>						
Capital and reserves	\$'000,000	163.5	207.4	199.8	202.1	206.9
Notes and debentures outstanding	"	1,772.4	1,661.1	1,399.4	1,335.4	1,369.3
Other liabilities	"	22.1	39.5	16.7	28.6	18.8
<b>Total, liabilities</b>	"	1,958.0	1,908.0	1,615.9	1,566.1	1,595.0
<b>Amounts outstanding</b>	\$'000,000	1,958.0	1,908.0	1,615.9	1,566.1	1,595.0
<b>Customers on books</b>	No.	35,076	31,147	24,677	20,234	17,442

**18.14 Local credit unions in Canada, 1979-85**

Year	Credit unions chartered	Assets \$'000	Loans granted to members \$'000
1979	3,665	26,671,497	20,231,595
1980	3,595	29,763,317	22,344,082
1981	3,448	31,657,404	23,716,793
1982	..	33,526,991	23,595,627
1983	..	37,110,568	27,565,656
1984	..	40,624,882	30,618,746
1985	3,125	44,045,039	33,768,244

**18.15 Summary statistics of local credit unions, by province, 1982-85 (thousand dollars)**

Year and province	Assets	Shares	Deposits	Loans granted to members
<b>1982</b>				
Newfoundland	42,050	7,913	30,889	32,063
Prince Edward Island	44,109	8,709	26,211	31,809
Nova Scotia	208,217	78,031	117,225	152,213
New Brunswick	401,320	152,912	216,306	343,653
Quebec	15,622,301	333,701	13,961,131	10,664,014
Ontario	5,207,511	770,170	4,206,880	3,585,550
Manitoba	1,266,692	1,437	1,237,283	973,697
Saskatchewan	3,115,497	274,558	2,605,273	2,094,056
Alberta	2,382,446	129,367	2,042,566	1,871,203
British Columbia	5,236,848	130,757	4,617,398	3,847,369
<b>Total</b>	<b>33,526,991</b>	<b>1,887,555</b>	<b>29,061,162</b>	<b>23,595,627</b>
<b>1983</b>				
Newfoundland	46,522	8,390	35,412	37,968
Prince Edward Island	46,830	9,640	28,204	36,635
Nova Scotia	236,510	87,011	137,142	176,340
New Brunswick	425,610	151,720	245,055	369,649
Quebec	17,453,851	345,006	15,259,422	12,877,246
Ontario	5,866,935	834,753	4,822,011	4,136,228
Manitoba	1,409,575	1,436	1,376,053	1,100,669
Saskatchewan	3,376,243	302,201	2,810,130	2,422,568
Alberta	2,505,484	147,814	2,204,412	1,955,522
British Columbia	5,743,008	138,138	5,135,557	4,452,831
<b>Total</b>	<b>37,110,568</b>	<b>2,026,109</b>	<b>32,053,398</b>	<b>27,565,656</b>



**18.15 Summary statistics of local credit unions, by province, 1982-85 (thousand dollars) (concluded)**

Year and province	Assets	Shares	Deposits	Loans granted to members
<b>1984</b>				
Newfoundland	54,982	8,600	43,326	45,163
Prince Edward Island	51,105	9,483	31,755	42,352
Nova Scotia	271,050	92,161	158,745	195,434
New Brunswick	441,728	151,560	260,623	384,303
Quebec	19,497,924	318,383	16,889,681	14,818,068
Ontario	6,441,819	846,536	5,291,914	4,713,794
Manitoba	1,587,475	1,438	1,539,611	1,239,292
Saskatchewan	3,687,220	288,104	3,119,987	2,631,024
Alberta	2,560,455	147,003	2,224,796	1,993,360
British Columbia	6,031,124	135,863	5,496,159	4,555,956
<b>Total</b>	<b>40,624,882</b>	<b>1,999,131</b>	<b>35,056,597</b>	<b>30,618,746</b>
<b>1985</b>				
Newfoundland	63,815	8,825	50,095	53,572
Prince Edward Island	58,043	9,762	37,196	47,648
Nova Scotia	301,078	99,401	178,531	221,738
New Brunswick	454,986	151,560	274,201	398,790
Quebec	21,597,693	325,588	18,775,221	16,934,869
Ontario	7,121,243	894,387	5,899,107	5,234,685
Manitoba	1,793,023	1,466	1,723,340	1,380,467
Saskatchewan	3,941,258	282,472	3,359,699	2,771,737
Alberta	2,398,649	22,461	2,418,699	1,799,459
British Columbia	6,315,251	134,988	5,793,296	4,925,279
<b>Total</b>	<b>44,045,039</b>	<b>1,930,910</b>	<b>38,509,385</b>	<b>33,768,244</b>

**18.16 Assets, liabilities and members' equity of local credit unions in Canada, 1983-85 (million dollars)**

Item	1983	1984	1985	Item	1983	1984	1985
<b>Assets</b>				<b>Fixed assets</b>			
Cash and demand deposits				Land, buildings, equipment and furniture	643	645	685
On hand	565	628	600	Stabilization fund deposits	101	99	96
In banks	181	175	159	Other assets	775	888	759
In centrals	2,942	2,983	3,224	<b>Total, assets</b>	<b>37,111</b>	<b>40,625</b>	<b>44,045</b>
Other	184	146	36	<b>Liabilities</b>			
<b>Investments</b>				Accounts payable			
Term deposits	3,192	3,395	3,397	Interest	598	788	875
Government of Canada	199	152	218	Dividends	8	10	10
Provincial governments	69	90	97	Other	78	70	94
Municipal governments	149	131	108	<b>Loans payable</b>			
Shares in centrals	327	353	380	Centrals	931	1,274	1,358
Other	550	654	835	Banks	28	46	7
<b>Loans</b>				Other	317	320	70
Cash loans				<b>Deposits</b>			
Personal	6,255	7,128	8,242	Demand	16,554	16,996	18,001
Farm	875	988	1,099	Term	15,499	18,061	20,509
Co-operatives and other enterprises	1,830	2,103	2,539	Other liabilities	209	213	232
Other	453	460	516	<b>Members' equity</b>			
<b>Mortgage loans</b>				Share capital	2,026	1,999	1,931
Dwellings	14,872	16,419	17,875	Reserves	727	889	979
Farm	1,076	1,164	1,207	Undivided surplus	135	-42	-20
Co-operatives and other enterprises	1,929	2,005	1,946	<b>Total, liabilities and members' equity</b>	<b>37,111</b>	<b>40,625</b>	<b>44,045</b>
Other	277	352	345				
<b>Allowance for doubtful loans</b>	<b>332</b>	<b>334</b>	<b>316</b>				

**18.17 Revenues and expenses of trust and mortgage loan companies, 1983-85 (million dollars)**

Item	Trust companies			Mortgage companies		
	1983 <sup>f</sup>	1984	1985	1983 <sup>f</sup>	1984	1985
<b>Revenues</b>						
Interest earned	5,603	6,088	6,487	4,141	4,803	5,392
Dividends	142	222	294	48	42	54
Fees and commissions	806	836	696	23	18	19
Other revenues	183	198	231	184	205	261
<b>Total, revenues</b>	<b>6,734</b>	<b>7,344</b>	<b>7,708</b>	<b>4,396</b>	<b>5,068</b>	<b>5,726</b>
<b>Expenses</b>						
Interest	4,820	5,375	5,741	3,689	4,370	4,748
Depreciation	38	45	54	3	4	5
Amortization	3	4	6	5	8	9
Income taxes	88	10	44	59	-3	91
Other expenses	1,548	1,723	1,635	429	519	625
<b>Total, expenses</b>	<b>6,497</b>	<b>7,157</b>	<b>7,480</b>	<b>4,185</b>	<b>4,898</b>	<b>5,478</b>
<b>Net profit</b>	<b>237</b>	<b>187</b>	<b>228</b>	<b>211</b>	<b>170</b>	<b>248</b>

**18.18 Assets, liabilities and shareholders' equity of trust companies, 1983-85 (million dollars)**

Item	1983	1984	1985	Item	1983	1984	1985
<b>Assets</b>				<b>Liabilities and shareholders' equity</b>			
<b>Cash and demand deposits</b>				<b>Liabilities</b>			
Chartered banks				Savings deposits			
Canadian currency	316	682	785	Chequing	3,478	4,948	7,338
Foreign currency	13	13	33	Non-chequing	4,878	4,228	3,764
Branches of Canadian banks outside Canada	1	6	4	For RRSP	2,835	2,668	2,733
Other institutions in Canada and outside Canada	6	2	25	For RHOSP	356	364	122
<b>Investments in Canada</b>				Other tax shelters	4	44	57
Term deposits				<b>Term deposits with original term of</b>			
Swapped deposits	138	424	724	Less than one year	5,385	6,067	6,111
Chartered banks				One to five years	20,448	22,138	24,256
Canadian currency	896	949	581	Over five years	206	191	175
Foreign currency	86	305	296	For RRSP purposes	7,709	9,749	11,826
Other institutions	217	201	315	For RHOSP purposes	165	198	105
<b>Short-term bills and notes</b>				Other tax shelters	1,023	916	750
Canada treasury bills	1,706	1,606	1,906	<b>Bank loans</b>			
Provincial treasury bills and notes	928	735	1,000	Chartered banks	175	198	150
Municipal notes	21	4	13	Banks outside Canada	—	—	—
Sales finance companies' notes	103	142	99	Accounts payable	1,943	2,336	2,088
Commercial paper	2,702	2,335	2,313	Income tax payable	32	-27	7
<b>Long-term bonds, debentures and notes</b>				Owing to parent and affiliated Canadian companies	292	405	328
Canada	1,045	1,096	880	Other notes and loans payable	502	544	966
Provincial	957	1,262	1,056	Deferred income	55	71	69
Municipal	373	407	361	Mortgages payable	127	95	41
Corporation	2,771	3,201	3,228	Deferred income taxes	215	199	199
<b>Investment in units of real estate investment trusts</b>				Other liabilities	227	329	558
Corporation shares	2,401	3,431	3,960	<b>Shareholders' equity</b>			
<b>Investment in subsidiaries</b>				Share capital			
Shares	321	399	285	Preferred	444	440	427
Advances	368	355	502	Common	544	606	793
<b>Other investments in Canada</b>				Contributed surplus	474	546	673
Investments outside Canada				Reserves	225	368	553
Corporation shares	147	163	129	Retained earnings	851	829	480
Other	43	61	75	<b>Total, liabilities and shareholders' equity</b>	<b>52,594</b>	<b>58,452</b>	<b>64,569</b>
<b>Loans</b>							
Mortgages							
National Housing Act	5,706	7,095	8,053				
Conventional							
Residential	20,566	21,153	23,251				
Non-residential	4,839	5,329	5,925				
<b>Personal</b>							
Secured	1,372	1,449	1,909				
Unsecured	774	1,171	1,674				
<b>Collateral business loans</b>							
With investment dealers	151	144	304				
Other collateral loans	706	826	1,021				
<b>Other loans</b>							
Lease contracts	497	706	618				
Accounts receivable and accruals	455	610	838				
Fixed assets, held for own use or for income	969	845	1,052				
Real estate held for sale	531	607	528				
Other assets	301	491	497				
	96	168	238				
<b>Total, assets</b>	<b>52,594</b>	<b>58,452</b>	<b>64,569</b>				

### 18.19 Assets, liabilities and shareholders' equity of mortgage loan companies, 1983-85 (million dollars)

Item	1983	1984	1985	Item	1983	1984	1985
<b>Assets</b>				<b>Liabilities</b>			
Cash and demand deposits				Demand deposits			
Chartered banks				Chequing	185	271	966
Canadian currency	124	172	224	Non-chequing	445	390	407
Foreign currency	--	12	54	For RRSP	10	10	1
Other institutions in Canada				For RHOSP	--	--	--
and outside Canada	6	9	39	Other tax shelters	--	--	--
Investments in Canada				Term deposits with original			
Term deposits				term of			
Chartered banks				Less than one year	1,582	3,440	4,402
Canadian currency	496	386	526	One to five years	20,190	24,209	27,358
Foreign currency (including				Over five years	803	789	773
swapped deposits)	29	246	105	For RRSP	40	68	92
Other institutions	31	38	13	For RHOSP	3	4	1
Short-term bills and notes				Other tax shelters	--	--	--
Canada treasury bills	891	1,401	1,317	Bank loans			
Provincial treasury bills				Chartered banks			
and notes	154	78	21	Canadian currency	37	51	126
Municipal notes	--	--	--	Foreign currency	--	--	--
Sales finance companies' notes	--	--	--	Banks outside Canada	--	--	--
Commercial paper	296	250	180	Other notes and loans payable			
Long-term bonds,				Promissory notes			
debentures and notes				Less than one year	4,452	4,295	2,815
Canada	357	405	684	One year or more	1,691	1,330	1,865
Provincial	225	203	99	Other	123	129	183
Municipal	5	25	16	Accounts payable and accruals	1,150	1,289	1,439
Corporation	2,155	1,986	1,415	Income taxes	9	-30	-7
Investment in units of real				Owing to parent and affiliated			
estate investment trusts	104	--	8	companies			
Corporation shares	315	494	421	In Canada	5,631	5,679	8,487
Investment in subsidiaries				Outside Canada	8	14	--
Shares	434	413	571	Debentures issued under trust			
Advances	331	158	248	indenture	915	636	438
Other investments in Canada	4	5	1	Deferred income	28	36	-4
Investments outside Canada				Mortgages payable	27	18	8
Corporation shares	22	13	23	Deferred income taxes	117	127	152
Other	16	36	24	Other liabilities	91	151	131
<b>Loans</b>				<b>Shareholders' equity</b>			
Mortgages				Share capital			
National Housing Act				Preferred	516	439	509
Conventional	9,255	10,724	13,144	Common	888	1,093	1,246
Residential	20,494	22,791	26,630	Contributed surplus	190	215	321
Non-residential	2,617	2,414	2,778	Reserves	148	92	130
Personal				Retained earnings	403	521	558
Secured	15	72	920	<b>Total, liabilities and</b>			
Unsecured	78	1,165	1,072	<b>shareholders' equity</b>	39,684	45,267	52,396
Collateral business loans							
Loans with investment							
dealers	--	11	47				
Other	411	841	757				
Other loans	8	24	52				
Lease contracts	50	124	147				
Accounts receivable and							
accruals	509	402	342				
Fixed assets	34	28	64				
Real estate held for sale	149	196	247				
Other assets	70	145	205				
<b>Total, assets</b>	<b>39,684</b>	<b>45,267</b>	<b>52,396</b>				

### 18.20 Estimated liabilities<sup>1</sup> of bankruptcies and insolvencies, 1983-86 (thousand dollars)

Province or territory	1983	1984	1985	1986
Newfoundland	7,986.0	12,988.5	5,852.0	4,145.0
Nova Scotia	34,367.5	20,999.5	18,810.0	27,250.3
Prince Edward Island	1,492.0	4,001.5	1,018.7	1,626.0
New Brunswick	20,274.2	10,139.0	11,919.0	9,838.0
Quebec	697,782.7	641,732.1	473,949.6	451,937.0
Ontario	614,600.2	488,238.0	425,921.7	370,711.0
Manitoba	69,809.5	43,232.5	58,968.0	32,240.6
Saskatchewan	45,329.1	38,520.5	54,036.5	59,160.6
Alberta	367,893.9	586,200.0	500,394.5	459,858.1
British Columbia	591,218.9	617,734.5	465,829.4	526,336.1
Yukon	275.0	132.0	1,785.0	570.1
Northwest Territories	1,011.0	805.0	1,742.0	370.5
<b>Canada</b>	<b>2,452,039.8</b>	<b>2,464,723.1</b>	<b>2,020,226.4</b>	<b>1,425,080.6</b>

<sup>1</sup>Estimated by debtors and therefore to be accepted with reservations.

## 18.21 Bankruptcies and insolvencies, by industry and region, 1983-86

Year and industry	Atlantic provinces	Quebec	Ontario	Prairie provinces	British Columbia	Total <sup>1</sup>	Total liabilities <sup>1,2</sup> \$'000
1983							
Primary industries	58	177	190	200	119	747	94,309
Manufacturing	7	60	16	9	15	107	60,747
Food and beverages	2	19	5	1	2	29	13,362
Textiles	—	36	12	1	2	51	17,487
Clothing	10	84	31	18	30	173	89,686
Wood	3	56	56	13	10	138	41,585
Paper and allied industries	—	—	—	—	—	—	—
Primary and fabricated metal, machinery, transportation, equipment, electrical products and non-metallic mineral products	4	116	111	36	38	305	128,088
Chemical	—	9	5	5	3	22	9,937
Other manufacturing industries	14	52	39	9	7	121	51,816
Construction	3	33	132	88	99	355	102,005
General contractors	42	420	382	241	123	1,210	188,912
Special trade contractors	27	187	212	165	105	698	94,309
Transportation, communications and other utilities	24	225	100	35	24	408	108,368
Trade	20	25	48	5	9	107	10,320
Food	42	319	272	126	123	882	142,138
General merchandise	4	136	117	44	32	333	62,147
Automotive products and machinery	5	28	23	13	9	78	9,472
Apparel and shoes	11	70	89	33	47	250	46,692
Hardware	3	8	7	4	1	23	5,582
Household furniture and appliances	21	466	236	129	93	945	574,777
Drugs	21	136	154	123	140	574	419,128
Other trades	5	62	51	21	10	149	26,430
Finance, insurance and real estate	7	73	64	29	17	190	50,114
Services	22	172	174	73	52	493	111,890
Education, health and welfare	4	81	59	45	24	213	22,881
Recreational	56	822	434	191	145	1,648	266,964
Business	2	7	1	1	—	11	2,466
Personal	—	—	—	—	—	—	—
Other services	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—
Total, all industries	417	3,879	3,020	1,658	1,279	10,260	2,452,040
1984							
Primary industries	93	219	175	217	150	854	223,142
Manufacturing	4	29	27	14	4	78	23,977
Food and beverages	—	10	8	2	2	22	10,980
Textiles	—	33	8	3	—	44	12,634
Clothing	2	74	40	17	52	186	58,144
Wood	2	42	40	12	8	104	24,178
Paper and allied industries	—	—	—	—	—	—	—
Primary and fabricated metal, machinery, transportation, equipment, electrical products and non-metallic mineral products	2	72	82	31	48	236	95,431
Chemical	—	8	8	5	2	23	12,403
Other manufacturing industries	11	33	36	6	18	104	45,042
Construction	5	41	88	133	132	399	139,147
General contractors	58	355	404	197	131	191	191,497
Special trade contractors	29	122	152	164	105	572	107,714
Transportation, communications and other utilities	28	226	81	50	48	433	86,962
Trade	8	13	62	17	10	110	11,577
Food	34	242	213	140	122	751	129,245
General merchandise	11	96	64	32	29	232	36,350
Automotive products and machinery	7	19	12	13	10	61	13,275
Apparel and shoes	3	41	63	40	45	192	31,451
Hardware	1	9	5	5	5	25	3,580
Household furniture and appliances	28	447	187	116	86	865	160,917
Drugs	19	119	133	171	179	622	531,759
Other trades	6	44	52	14	15	131	25,010
Finance, insurance and real estate	15	60	67	32	23	197	48,070
Services	14	138	149	102	75	478	135,148
Education, health and welfare	3	73	46	27	21	170	17,787
Recreational	41	769	376	195	157	1,538	289,073
Business	—	3	1	—	—	4	239
Personal	—	—	—	—	—	—	—
Other services	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—
Total, all industries	424	3,337	2,579	1,755	1,477	9,578	1,896,239



**18.21 Bankruptcies and insolvencies, by industry and region, 1983-86 (concluded)**

Year and industry	Atlantic provinces	Quebec	Ontario	Prairie provinces	British Columbia	Total <sup>1</sup>	Total liabilities <sup>1,2</sup> \$'000
1985							
Primary industries	93	184	167	242	104	791	174,758
Manufacturing							
Food and beverages	1	29	23	12	8	73	26,493
Textiles	—	15	17	—	1	33	27,524
Clothing	1	20	10	4	5	40	22,041
Wood	1	61	28	18	36	144	40,180
Paper and allied industries	2	40	38	17	18	115	15,421
Primary and fabricated metal, machinery, transportation, equipment, electrical products and non-metallic mineral products	6	54	62	47	34	204	107,828
Chemical	—	3	5	2	—	10	2,599
Other manufacturing industries	14	27	20	2	12	75	36,011
Construction							
General contractors	7	25	103	116	130	382	120,308
Special trade contractors	54	320	419	202	150	1,146	162,204
Transportation, communications and other utilities	30	104	142	144	77	499	58,692
Trade							
Food	6	203	93	55	49	407	43,868
General merchandise	10	21	38	7	7	83	13,421
Automotive products and machinery	29	202	158	148	94	632	85,395
Apparel and shoes	6	136	80	30	20	273	48,520
Hardware	2	12	11	11	3	39	5,569
Household furniture and appliances	5	28	60	52	44	189	47,911
Drugs	1	9	3	4	3	20	3,021
Other trades	32	410	135	106	102	787	121,919
Finance, insurance and real estate	15	59	92	173	134	473	431,716
Services							
Education, health and welfare	2	47	51	13	23	136	28,776
Recreational	18	60	52	45	28	203	41,452
Business	16	126	148	79	69	438	104,736
Personal	6	62	37	36	34	175	13,820
Other services	50	546	324	218	146	1,288	186,481
Other	3	4	1	—	—	8	1,343
Total, all industries	410	2,807	2,317	1,783	1,331	8,663	1,555,131
1986							
Primary industries	66	140	130	249	112	699	188,861
Manufacturing							
Food and beverages	2	27	11	14	13	67	31,154
Textiles	1	7	6	2	2	19	2,449
Clothing	—	20	9	3	3	34	7,045
Wood	6	47	26	26	29	134	38,723
Paper and allied industries	4	38	33	18	14	107	12,567
Primary and fabricated metal, machinery, transportation, equipment, electrical products and non-metallic mineral products	2	49	53	29	44	177	82,459
Chemical	3	3	6	4	3	19	2,692
Other manufacturing industries	11	26	25	9	16	87	25,766
Construction							
General contractors	5	28	74	135	122	366	126,026
Special trade contractors	58	330	369	200	129	1,090	178,959
Transportation, communications and other utilities	18	136	126	152	111	544	65,605
Trade							
Food	12	231	88	67	60	458	58,518
General merchandise	11	15	24	10	26	86	5,594
Automotive products and machinery	26	184	163	168	106	650	100,148
Apparel and shoes	7	110	58	31	18	224	26,246
Hardware	4	15	13	12	8	50	6,944
Household furniture and appliances	6	40	47	54	29	176	19,860
Drugs	2	13	10	4	5	34	3,585
Other trades	14	392	147	97	89	740	149,504
Finance, insurance and real estate	10	79	65	137	128	419	402,005
Services							
Education, health and welfare	7	46	48	11	30	142	25,397
Recreational	9	46	48	32	40	175	43,334
Business	15	119	133	93	100	461	119,136
Personal	12	110	55	28	27	232	21,335
Other services	44	574	291	215	180	1,306	197,894
Other	1	1	2	1	1	6	1,706
Total, all industries	356	2,826	2,060	1,801	1,445	8,502	1,944,436

Includes Yukon and Northwest Territories.

Totals may not add due to rounding.

**18.22 Total consumer bankruptcies reported, calendar years, 1983-86**

Year and province or territory	Total estates	Total assets \$	Total liabilities \$	Total deficiency \$
<b>1983</b>				
Newfoundland	371	2,337,250	7,112,000	4,774,750
Prince Edward Island	30	120,750	930,000	809,250
Nova Scotia	928	5,529,200	22,036,800	16,507,600
New Brunswick	273	2,245,750	9,026,500	6,780,750
Quebec	7,561	66,143,550	263,146,750	197,003,200
Ontario	10,973	113,041,150	396,558,700	283,517,550
Manitoba	1,027	12,756,750	44,131,500	31,374,750
Saskatchewan	587	15,632,850	30,436,500	14,803,650
Alberta	2,411	72,329,150	223,082,000	150,752,850
British Columbia	2,652	89,803,200	265,322,000	175,518,800
Yukon	61	101,300	298,000	196,700
Northwest Territories	3	14,350	113,500	99,150
<b>Canada</b>	<b>26,822</b>	<b>380,055,250</b>	<b>1,262,194,250</b>	<b>882,139,000</b>
<b>1984</b>				
Newfoundland	277	1,551,150	6,477,750	4,926,600
Prince Edward Island	33	250,700	2,503,500	2,252,800
Nova Scotia	717	4,144,550	23,964,000	19,819,450
New Brunswick	297	1,784,800	7,496,000	5,711,200
Quebec	6,269	46,834,400	231,880,000	185,045,600
Ontario	8,209	73,770,200	332,816,650	259,046,450
Manitoba	661	9,171,200	31,654,500	22,483,300
Saskatchewan	529	12,910,950	27,434,500	14,523,550
Alberta	2,373	75,463,950	297,088,000	221,624,050
British Columbia	2,648	72,579,800	281,430,500	208,850,700
Yukon	2	54,500	126,000	71,500
Northwest Territories	7	104,000	469,500	365,500
<b>Canada</b>	<b>22,022</b>	<b>298,620,200</b>	<b>1,243,340,900</b>	<b>944,720,700</b>
<b>1985</b>				
Newfoundland	238	1,727,550	5,482,000	3,754,450
Prince Edward Island	31	123,700	610,000	486,300
Nova Scotia	660	3,600,200	12,600,000	8,999,800
New Brunswick	205	1,572,500	7,380,500	5,808,000
Quebec	5,684	42,268,400	218,371,300	176,102,900
Ontario	6,828	49,208,800	249,761,300	200,552,500
Manitoba	658	8,284,350	23,107,350	14,823,000
Saskatchewan	454	12,274,600	26,686,500	14,411,900
Alberta	2,318	65,387,950	228,045,500	162,657,550
British Columbia	2,666	56,337,350	177,739,750	121,402,400
Yukon	4	318,150	555,000	236,850
Northwest Territories	6	65,500	174,500	109,000
<b>Canada</b>	<b>19,752</b>	<b>241,169,050</b>	<b>950,513,700</b>	<b>709,344,650</b>
<b>1986</b>				
Newfoundland	246	1,526,500	4,448,000	2,921,500
Prince Edward Island	55	246,450	895,500	649,050
Nova Scotia	767	4,874,550	16,025,500	11,150,950
New Brunswick	249	2,229,550	8,260,000	6,030,450
Quebec	6,497	40,756,600	225,086,600	184,330,000
Ontario	7,580	50,682,600	239,792,300	189,109,700
Manitoba	754	7,383,050	20,248,050	12,865,000
Saskatchewan	562	17,830,000	33,094,000	15,264,000
Alberta	2,262	60,529,450	154,286,500	93,757,050
British Columbia	2,781	52,007,600	210,567,550	158,559,950
Yukon	7	118,150	247,500	129,350
Northwest Territories	5	20,400	254,400	234,000
<b>Canada</b>	<b>21,765</b>	<b>238,204,900</b>	<b>913,205,900</b>	<b>675,001,000</b>

**18.23 Summary statistics of estates closed during 1983-1986, under the Bankruptcy Act**

Year and item		Atlantic provinces	Quebec	Ontario	Prairie provinces	British Columbia	Total
1983							
Bankrupt estates	No.						
Estates closed		1,863	8,982	16,562	4,154	2,218	33,779
Assets as declared by debtors	\$'000	23,082.1	181,295.4	253,905.8	103,086.1	55,723.4	617,092.6
Liabilities as declared by debtors	"	78,736.7	549,984.8	879,370.5	279,950.6	241,777.7	2,029,820.2
Deficit	"	55,654.7	368,689.4	625,464.8	176,864.5	186,054.3	1,412,727.6
Realizations by trustees	"	3,309.7	42,971.9	43,237.8	13,047.4	7,278.5	109,845.2
Administrative expenses	"	1,660.7	27,864.1	20,095.7	6,873.1	4,074.5	60,568.1
Dividends	"	1,649.0	15,107.9	23,142.1	6,174.3	3,204.0	49,277.2
1984							
Bankrupt estates	No.						
Estates closed		2,144	7,368	12,466	5,934	2,855	30,737
Assets as declared by debtors	\$'000	44,144.1	238,547.4	207,281.5	169,573.2	94,126.7	753,672.8
Liabilities as declared by debtors	"	122,115.8	679,804.6	783,271.0	565,270.9	353,949.4	2,504,411.6
Deficit	"	77,971.8	441,257.2	575,989.5	395,697.7	259,822.7	1,750,738.8
Realizations by trustees	"	6,446.6	49,754.0	31,702.4	20,580.9	9,119.3	117,603.0
Administrative expenses	"	3,083.9	28,255.5	16,555.1	10,299.9	5,163.1	63,357.3
Dividends	"	3,362.7	21,498.5	15,147.3	10,281.0	3,956.2	54,245.7
1985							
Bankrupt estates	No.						
Estates closed		1,520	10,402	14,264	5,677	3,760	35,623
Assets as declared by debtors	\$'000	19,150.2	209,171.6	205,098.4	234,856.8	139,849.4	808,126.4
Liabilities as declared by debtors	"	73,792.3	831,630.0	963,096.3	893,339.3	647,796.9	3,409,654.8
Deficit	"	54,642.1	622,458.4	757,997.9	658,482.5	507,947.5	2,601,528.4
Realizations by trustees	"	4,458.5	62,336.3	42,922.0	31,187.4	10,275.0	151,179.0
Administrative expenses	"	2,648.8	35,490.0	27,847.5	13,326.3	6,180.3	85,492.8
Dividends	"	1,809.7	26,846.3	15,074.5	17,861.1	4,094.7	65,686.2
1986							
Bankrupt estates	No.						
Estates closed		1,157	10,009	9,227	5,712	3,374	29,479
Assets as declared by debtors	\$'000	37,203.7	247,321.7	143,418.7	198,935.4	122,786.8	749,866.3
Liabilities as declared by debtors	"	71,126.3	826,788.6	648,810.8	945,917.1	570,751.7	3,063,394.5
Deficit	"	33,922.6	579,466.9	505,392.1	746,981.7	447,765.0	2,313,528.3
Realizations by trustees	"	16,385.5	112,934.5	35,018.9	36,461.3	27,535.7	228,335.8
Administrative expenses	"	8,934.3	95,558.3	20,375.9	22,962.5	20,441.8	168,272.7
Dividends	"	7,451.3	17,376.3	14,643.0	13,498.8	7,093.9	60,063.2

**18.24 Life insurance effected and in force in Canada by insurance companies under federal registration, selected years, 1880-1985 (million dollars)**

Year	New insurance effected during year	Amounts in force December 31			Total
		Canadian	British	Foreign	
1880	14	38	20	34	91
1900	68	267	39	124	431
1920	630	1,664	77	916	2,657
1940	590	4,609	146	2,221	6,975
1960	5,693	30,418	1,555	12,676	44,649
1970	12,915	76,775	5,727	28,615	111,116
1975	32,526	151,974	10,476	45,629	208,079
1980	57,332	309,454	20,465	73,128	403,047
1981	70,818	358,087	24,182	83,299	465,568
1982	85,468	394,822	27,348	90,332	512,502
1983	94,299	445,858	27,013	95,565	568,436
1984	98,103	496,595	29,353	105,019	630,967
1985	108,226	551,321	31,104	106,558	688,983

**18.25 Amounts of ordinary<sup>1</sup> and group life insurance policies effected and in force in Canada by federally registered companies, 1982-85 (million dollars)**

Policies	1982			1983		
	Canadian	British	Foreign	Canadian	British	Foreign
Effected during year						
Ordinary <sup>1</sup>	35,776	5,566	10,158	40,418	5,458	12,049
Group	27,217	1,188	5,563	30,704	1,026	4,644
In force December 31						
Ordinary <sup>1</sup>	147,395	19,213	43,787	171,776	18,627	49,112
Group	247,427	8,135	46,545	274,082	8,386	46,453
	1984			1985		
Effected during year						
Ordinary <sup>1</sup>	45,079	4,743	13,728	52,300	4,727	12,445
Group	27,980	1,356	5,217	31,810	1,818	5,126
In force December 31						
Ordinary <sup>1</sup>	195,842	20,443	55,111	227,353	22,115	55,301
Group	300,753	8,910	49,908	323,968	8,989	51,251

<sup>1</sup> Includes industrial policies.
**18.26 Life insurance premiums (direct written), by province, 1982-85 (million dollars)**

Province or territory	1982				1983			
	Life			Accident and sickness total	Life			Accident and sickness total
	Ordinary <sup>1</sup>	Group	Total		Ordinary <sup>1</sup>	Group	Total	
Newfoundland	28	14	42	33	29	16	45	36
Prince Edward Island	7	3	11	5	9	3	12	6
Nova Scotia	71	31	102	56	76	34	110	62
New Brunswick	55	21	76	41	57	23	80	43
Quebec	640	298	938	475	651	303	954	492
Ontario	905	451	1,356	1,020	951	472	1,423	1,110
Manitoba	97	45	142	67	98	50	148	74
Saskatchewan	75	39	114	43	79	55	134	48
Alberta	239	114	353	198	249	120	369	213
British Columbia	228	119	347	209	233	124	357	214
Yukon and Northwest Territories	3	2	5	3	4	1	5	3
Miscellaneous	23	7	30	2	23	5	28	1
Total	2,372	1,144	3,516	2,152	2,459	1,206	3,665	2,302
	1984				1985			
Newfoundland	31	17	48	41	34	19	53	44
Prince Edward Island	10	4	14	6	11	4	15	7
Nova Scotia	83	36	119	68	92	42	134	74
New Brunswick	63	22	85	48	70	27	97	54
Quebec	710	313	1,023	542	756	343	1,099	582
Ontario	1,039	519	1,558	1,241	1,137	547	1,684	1,357
Manitoba	105	51	156	82	113	56	169	87
Saskatchewan	87	46	133	53	95	48	143	58
Alberta	267	123	390	214	289	133	422	238
British Columbia	252	125	377	239	280	136	416	262
Yukon and Northwest Territories	4	1	5	3	4	2	6	4
Miscellaneous	22	6	28	-1	24	5	29	-3
Total	2,673	1,263	3,936	2,536	2,905	1,362	4,267	2,764

<sup>1</sup> Includes industrial policies.



**18.27 Major assets and liabilities of federally registered life insurance companies, as at December 31, 1982-85 (million dollars)**

Assets and liabilities	Life insurance					
	1982			1983		
	Canadian <sup>1</sup>	British <sup>2</sup>	Foreign <sup>2</sup>	Canadian <sup>1</sup>	British <sup>2</sup>	Foreign <sup>2</sup>
<b>Assets</b>						
Bonds	18,175	1,473	3,007	20,582	1,495	3,284
Stocks	3,633	315	165	4,024	389	211
Mortgages <sup>3</sup>	16,729	1,122	2,052	19,078	1,278	1,917
Real estate and ground rents	3,080	250	215	3,369	307	249
Policy loans	3,751	171	396	3,823	152	405
Other assets	2,915	263	269	3,208	179	319
Segregated	7,372	1,245	202	8,710	1,419	258
<b>Total<sup>4</sup></b>	<b>55,655</b>	<b>4,839</b>	<b>6,306</b>	<b>62,794</b>	<b>5,219</b>	<b>6,643</b>
<b>Liabilities</b>						
Actuarial reserves	36,488	2,872	3,983	41,018	3,161	4,266
Outstanding claims	432	19	63	460	20	63
Amounts on deposit	2,395	23	272	2,670	18	296
Other liabilities	5,528 <sup>5</sup>	180	648	6,242 <sup>6</sup>	169	482
Segregated	7,347	1,245	141	8,684	1,408	190
<b>Total</b>	<b>52,190</b>	<b>4,339</b>	<b>5,107</b>	<b>59,074</b>	<b>4,776</b>	<b>5,297</b>
<b>Surplus or excess<sup>7</sup></b>	<b>3,386</b>	<b>500</b>	<b>1,199</b>	<b>3,610</b>	<b>443</b>	<b>1,346</b>
<b>Capital stock</b>	<b>79</b>	<b>—</b>	<b>—</b>	<b>110</b>	<b>—</b>	<b>—</b>
	<b>1984</b>			<b>1985</b>		
<b>Assets</b>						
Bonds	26,058	1,863	3,828	30,407	2,165	4,383
Stocks	4,567	402	234	5,313	474	316
Mortgages <sup>3</sup>	20,761	1,392	1,777	24,611	1,550	1,741
Real estate and ground rents	3,418	335	265	3,618	337	263
Policy loans	3,915	148	415	3,942	146	427
Other assets	4,291	221	341	4,369	293	357
Segregated	9,096	1,463	273	11,298	1,633	331
<b>Total<sup>4</sup></b>	<b>72,106</b>	<b>5,824</b>	<b>7,133</b>	<b>83,558</b>	<b>6,598</b>	<b>7,818</b>
<b>Liabilities</b>						
Actuarial reserves	47,816	3,729	4,654	55,011	4,205	5,060
Outstanding claims	501	25	72	560	23	67
Amounts on deposit	2,869	21	317	3,125	25	350
Other liabilities	7,655 <sup>8</sup>	151	452	8,730 <sup>9</sup>	161	369
Segregated	9,074	1,457	206	11,276	1,619	262
<b>Total</b>	<b>67,915</b>	<b>5,383</b>	<b>5,701</b>	<b>78,702</b>	<b>6,033</b>	<b>6,108</b>
<b>Surplus or excess<sup>7</sup></b>	<b>3,915</b>	<b>441</b>	<b>1,432</b>	<b>4,384</b>	<b>565</b>	<b>1,710</b>
<b>Capital stock</b>	<b>276</b>	<b>—</b>	<b>—</b>	<b>472</b>	<b>—</b>	<b>—</b>
	<b>Accident and sickness insurance</b>					
	<b>1982</b>			<b>1983</b>		
<b>Assets</b>						
Bonds	1,409	38	660	1,606	45	681
Stocks	154	3	—	193	4	1
Mortgages <sup>3</sup>	884	5	1	1,023	6	—
Real estate and ground rents	—	—	—	—	—	—
Policy loans	—	—	—	3	—	—
Other assets	603	4	126	—	—	—
Segregated	—	—	—	632	6	129
<b>Total<sup>4</sup></b>	<b>3,050</b>	<b>50</b>	<b>787</b>	<b>3,457</b>	<b>61</b>	<b>811</b>
<b>Liabilities</b>						
Actuarial reserves	1,771	43	363	2,080	51	394
Outstanding claims	377	—	54	405	1	46
Amounts on deposit	128	—	2	157	—	1
Other liabilities	886	3	136	826	4	104
Segregated	—	—	—	—	—	—
<b>Total</b>	<b>3,162</b>	<b>46</b>	<b>555</b>	<b>3,468</b>	<b>56</b>	<b>545</b>

**18.27 Major assets and liabilities of federally registered life insurance companies, as at December 31, 1982-85 (million dollars) (concluded)**

Assets and liabilities	Accident and sickness insurance					
	1982			1983		
	Canadian <sup>1</sup>	British <sup>2</sup>	Foreign <sup>2</sup>	Canadian <sup>1</sup>	British <sup>2</sup>	Foreign <sup>2</sup>
Surplus or excess <sup>6</sup>	-119	4	232	-22	5	266
Capital stock	7	...	...	11	...	...
	1984			1985		
Assets						
Bonds	1,897	59	694	2,169	94	727
Stocks	197	4	—	253	4	1
Mortgages <sup>3</sup>	1,130	7	3	1,310	6	22
Real estate and ground rents	6	—	—	6	—	—
Policy loans	...	...	...	...	...	...
Other assets	755	10	139	630	19	151
Segregated	...	...	...	...	...	...
Total <sup>4</sup>	3,985	80	836	4,368	123	901
Liabilities						
Actuarial reserves	2,435	64	447	2,825	93	489
Outstanding claims	463	1	43	499	2	45
Amounts on deposit	172	—	4	188	—	4
Other liabilities	851	4	107	665	4	84
Segregated	...	...	...	...	...	...
Total	3,921	69	601	4,177	99	622
Surplus or excess <sup>6</sup>	53	11	235	180	24	279
Capital stock	11	...	...	11	...	...

<sup>1</sup> Assets at book values, in and out of Canada (segregated funds at market values).

<sup>2</sup> Assets at book values in Canada only.

<sup>3</sup> Mortgages include agreements of sale.

<sup>4</sup> Includes assets under control of Chief Agent in Canada (British and Foreign only).

<sup>5</sup> Includes \$2,699 million appropriated surplus (reserve requested by department, \$1,084 million and \$1,615 million other reserve) previously included in liabilities (Canadian only).

<sup>6</sup> Includes \$3,042 million appropriated surplus (reserve requested by department, \$1,345 million and \$1,697 million other reserve) previously included in liabilities (Canadian only).

<sup>7</sup> Excess of assets over liabilities in Canada for British and foreign companies; for such companies, "capital stock" is not applicable in Canada.

<sup>8</sup> Includes \$3,440 million appropriated surplus (reserve requested by department, \$1,519 million and \$1,921 million other reserve) previously included in liabilities (Canadian only).

<sup>9</sup> Includes \$3,779 million appropriated surplus (reserve requested by department, \$1,634 million and \$2,145 million other reserve) previously included in liabilities (Canadian only).

**18.28 Major items of income and expenditure of federally registered life insurance companies, 1983-85 (million dollars)**

Income and expenditure	1983 Life			1984 Life		
	Canadian	British <sup>1</sup>	Foreign <sup>1</sup>	Canadian	British <sup>1</sup>	Foreign <sup>1</sup>
Income						
Insurance premiums and annuity considerations	9,464 <sup>2</sup>	781	886	11,378 <sup>2</sup>	920	1,041
Investment income - regular funds	5,148	449	620	6,117	492	675
Net investment gain - segregated funds	1,329	297	36	749	74	5
Other items	345	104	65	402	64	58
Total income	16,286	1,631	1,607	18,646	1,550	1,779
Selected expenditure						
Claims incurred	5,544	683	488	6,451	381	545
Dividends to policyholders	960	58	186	976	63	210
Commissions and general expenses	2,062	167	289	2,380	173	315
Taxes, licences and fees	91 <sup>3</sup>	17	15	105 <sup>3</sup>	17	18

### 18.28 Major items of income and expenditure of federally registered life insurance companies, 1983-85 (million dollars) (concluded)

Income and expenditure	1985 Life			1983 Accident and sickness		
	Canadian	British <sup>1</sup>	Foreign <sup>1</sup>	Canadian	British <sup>1</sup>	Foreign <sup>1</sup>
Income						
Insurance premiums and annuity considerations	14,134 <sup>2</sup>	888	1,059	2,550	20	430
Investment income - regular funds	7,256	551	753	320	5	80
Net investment gain - segregated funds	2,010	262	50	—	—	—
Other items	249	136	133	20	1	3
Total income	23,649	1,837	1,995	2,890	26	513
Selected expenditure						
Claims incurred	8,649	472	603	2,074	10	316
Dividends to policyholders	1,021	62	223	55	—	5
Commissions and general expenses	2,642	182	317	352	5	103
Taxes, licences and fees	115 <sup>3</sup>	18	18	58	—	10
	1984 Accident and sickness			1985 Accident and sickness		
Income						
Insurance premiums and annuity considerations	2,851	28	441	3,042	41	450
Investment income - regular funds	360	7	81	482	10	85
Net investment gain - segregated funds	—	—	—	—	—	—
Other items	21	—	3	16	3	9
Total income	3,232	35	525	3,540	54	544
Selected expenditure						
Claims incurred	2,259	14	315	2,383	24	304
Dividends to policyholders	52	—	9	118	—	—
Commissions and general expenses	397	7	116	457	12	8
Taxes, licences and fees	64	1	9	66	1	131
						10

<sup>1</sup> Business in Canada only.

<sup>2</sup> Worldwide business of which \$3,431 million in 1983, \$4,493 million in 1984 and \$5,636 million in 1985 was applicable to out-of-Canada business.

<sup>3</sup> Excludes income taxes.

### 18.29 Property and casualty net premiums written and net claims incurred, by class of insurance and by incorporation of company, 1982-85 (million dollars)

Year and insurance class	Net premiums written				Net claims incurred <sup>1</sup>
	Canadian	British	Foreign	Total	
1982					
Property <sup>2</sup>	1,445	264	592	2,301	1,521
Automobile	2,001	193	676	2,870	2,112
Liability	263	38	110	411	344
Accident and sickness	144	38	27	209	175
Other casualty <sup>3</sup>	124	49	71	244	206
Marine	28	6	14	48	42
Total	4,005	588	1,490	6,083	4,400
1983					
Property <sup>2</sup>	1,619	262	578	2,459	1,399
Automobile	2,280	199	711	3,190	2,396
Liability	266	36	120	422	432
Accident and sickness	153	46	25	224	172
Other casualty <sup>3</sup>	139	44	61	244	233
Marine	31	6	14	51	32
Total	4,488	593	1,509	6,590	4,664

**18.29 Property and casualty net premiums written and net claims incurred, by class of insurance and by incorporation of company, 1982-85 (million dollars) (concluded)**

Year and insurance class	Net premiums written				Net claims incurred <sup>1</sup>
	Canadian	British	Foreign	Total	
1984					
Property <sup>2</sup>	1,699	263	627	2,589	1,618
Automobile	2,332	189	740	3,261	2,806
Liability	288	42	156	486	492
Accident and sickness	158	57	27	242	180
Other casualty <sup>3</sup>	145	42	83	270	275
Marine	36	6	16	58	39
Total	4,658	599	1,649	6,906	5,410
1985					
Property <sup>2</sup>	1,853	266	742	2,861	1,861
Automobile	2,611	202	847	3,660	3,348
Liability	416	60	253	729	562
Accident and sickness	182	55	31	268	206
Other casualty <sup>3</sup>	166	41	108	315	195
Marine	40	7	22	69	33
Total	5,268	631	2,003	7,902	6,205

<sup>1</sup> Includes adjustment expenses.<sup>2</sup> Includes fire, personal property, real property, windstorm, earthquake, inland transportation, livestock, theft, forgery, plate glass.<sup>3</sup> Includes hail, fidelity, surety, boiler and machinery, aircraft, credit, legal expenses, mortgage.**18.30 Property and casualty direct premiums written and claims incurred, by province and by category of company, 1982-85 (million dollars)**

Year and province or territory	Premiums written			Claims incurred
	Companies federally registered <sup>1</sup>	Companies provincially licensed	Total	
1982				
Newfoundland	72	23	95	86
Prince Edward Island	26	1	27	18
Nova Scotia	208	2	208	146
New Brunswick	172	17	189	129
Quebec	1,647	958	2,605	1,780
Ontario	2,646	591	3,237	2,393
Manitoba	122	205	327	260
Saskatchewan	99	157	256	193
Alberta	976	129	1,105	808
British Columbia	453	770	1,223	1,075
Yukon and Northwest Territories	24	2	26	23
Canada	6,445	2,853	9,298	6,916
1983				
Newfoundland	85	23	108	92
Prince Edward Island	28	4	32	20
Nova Scotia	231	—	231	134
New Brunswick	191	22	213	126
Quebec	1,650	1,011	2,661	1,845
Ontario	3,042	423	3,465	2,577
Manitoba	137	223	360	280
Saskatchewan	125	163	288	287
Alberta	964	143	1,107	765
British Columbia	460	789	1,249	1,104
Yukon and Northwest Territories	23	3	26	21
Canada	6,936	2,804	9,740	7,254



**18.30 Property and casualty direct premiums written and claims incurred, by province and by category of company, 1982-85 (million dollars) (concluded)**

Year and province or territory	Premiums written			Claims incurred
	Companies federally registered <sup>1</sup>	Companies provincially licensed	Total	
1984				
Newfoundland	86	23	109	80
Prince Edward Island	31	4	35	24
Nova Scotia	245	—	245	161
New Brunswick	206	22	228	164
Quebec	1,668	1,028	2,696	2,098
Ontario	3,222	446	3,668	3,042
Manitoba	148	243	391	327
Saskatchewan	141	166	307	222
Alberta	937	142	1,079	892
British Columbia	488	808	1,296	1,143
Yukon and Northwest Territories	27	2	29	20
Canada	7,199	2,884	10,083	8,173
1985				
Newfoundland	100	24	124	80
Prince Edward Island	35	4	39	31
Nova Scotia	271	1	272	201
New Brunswick	243	11	254	167
Quebec	1,830	1,074	2,904	2,273
Ontario	3,745	542	4,287	3,617
Manitoba	164	260	424	358
Saskatchewan	153	178	331	212
Alberta	1,009	162	1,171	988
British Columbia	593	810	1,403	1,208
Yukon and Northwest Territories	31	2	33	38
Canada	8,174	3,068	11,242	9,173

<sup>1</sup> Includes Lloyd's, now federally registered.<sup>2</sup> Less than \$500,000.
**18.31 Major assets and liabilities of federally registered property and casualty insurance companies, 1982-85 (million dollars)**

Assets and liabilities	1982			1983		
	Canadian <sup>1</sup>	British <sup>2</sup>	Foreign <sup>2</sup>	Canadian <sup>1</sup>	British <sup>2</sup>	Foreign <sup>2</sup>
Assets						
Bonds	3,228	539	2,462	3,894	656	2,703
Stocks	1,309	64	121	1,818	84	156
Amounts due from agents and premiums receivable	594	57	248	586	59	276
Other	2,515	180	776	2,637	186	782
Total	7,646	840 <sup>3</sup>	3,607 <sup>3</sup>	8,935	985	3,917
Liabilities						
Unearned premiums	2,018	219	771	2,175	228	772
Unpaid claims	2,687	314	1,066	3,346	345	1,243
Other	848	58 <sup>4</sup>	251 <sup>4</sup>	915	57 <sup>4</sup>	251 <sup>4</sup>
Total	5,553	591	2,088	6,436	630	2,266
Statutory reserves (including general and contingency reserves)	332	31	342	300	22	321
Surplus or excess <sup>5</sup>	1,204	218 <sup>6</sup>	1,177 <sup>6</sup>	1,605	333 <sup>6</sup>	1,330 <sup>6</sup>
Capital stock and amounts transferred	557	...	...	594	...	...

### 18.31 Major assets and liabilities of federally registered property and casualty insurance companies, 1982-85 (million dollars) (concluded)

Assets and liabilities	1984			1985		
	Canadian <sup>1</sup>	British <sup>2</sup>	Foreign <sup>2</sup>	Canadian <sup>1</sup>	British <sup>2</sup>	Foreign <sup>2</sup>
<b>Assets</b>						
Bonds	4,182	686	2,981	4,837	643	3,334
Stocks	1,824	90	172	1,871	98	211
Amounts due from agents and premiums receivable	624	61	316	805	69	403
Other	2,906	212	872	3,171	301	946
<b>Total</b>	<b>9,536</b>	<b>1,049</b>	<b>4,341</b>	<b>10,684</b>	<b>1,111</b>	<b>4,894</b>
<b>Liabilities</b>						
Unearned premiums	2,248	233	793	2,584	236	956
Unpaid claims	3,908	398	1,492	4,421	434	1,796
Other	845	62 <sup>4</sup>	243 <sup>4</sup>	981	73 <sup>4</sup>	253 <sup>4</sup>
<b>Total</b>	<b>7,001</b>	<b>693</b>	<b>2,528</b>	<b>7,986</b>	<b>743</b>	<b>3,005</b>
Statutory reserves (including general and contingency reserves)	415	22	350	393	25	229
Surplus or excess <sup>5</sup>	1,602	334 <sup>6</sup>	1,463 <sup>6</sup>	1,741	343 <sup>6</sup>	1,660 <sup>6</sup>
Capital stock and amounts transferred	518	...	...	564	...	...

<sup>1</sup> Business in and out of Canada, investments on book value basis.<sup>2</sup> Business in Canada only, investments on book value basis.<sup>3</sup> Assets for British and Foreign at book value.<sup>4</sup> In 1982, British and foreign property and casualty companies statements are balanced; marine liabilities (British, \$24 million in 1982, \$17 million in 1983, \$29 million in 1984 and \$39 million in 1985; foreign, \$20 million in 1982, \$21 million in 1983 and 1984, and \$25 million in 1985) are included in "other" liabilities.<sup>5</sup> Excess of assets over liabilities in Canada for British and foreign companies; for such companies, "capital stock" is not applicable in Canada.<sup>6</sup> This amount is the Head Office Account in 1982-85.

### 18.32 Property and casualty insurance, underwriting results in Canada, 1982-85 with totals for 1978-85 (million dollars)

Registered companies	Underwriting revenue	Claims <sup>1</sup> incurred	Expenses incurred	Dividends to policyholders	Underwriting income
<b>1982</b>					
Canadian <sup>2</sup>	3,893.0	2,940.0	1,297.6	5.0	-349.6
British	542.9	373.7	183.7	—	-14.5
Foreign	1,383.0	1,068.5	437.6	8.9	-132.0
<b>1983</b>					
Canadian <sup>2</sup>	4,413.2	3,204.1	1,491.7	7.7	-290.3
British	577.2	342.6	204.8	—	29.8
Foreign	1,491.0	1,105.9	474.0	16.1	-105.0
<b>1984</b>					
Canadian <sup>2</sup>	4,603.6	3,723.2	1,580.7	6.2	-706.5
British	586.6	407.8	209.1	—	-30.3
Foreign	1,586.4	1,265.7	528.3	2.6	-210.2
<b>1985</b>					
Canadian <sup>2</sup>	4,950.8	4,155.2	1,665.0	9.6	-879.0
British	612.4	454.5	226.9	—	-69.0
Foreign	1,805.3	1,586.3	568.2	5.3	-354.5
<b>Total, 1985</b>	<b>7,368.5</b>	<b>6,196.0</b>	<b>2,460.1</b>	<b>14.9</b>	<b>-1,302.5</b>
1984	6,776.6	5,396.7	2,318.1	8.8	-947.0
1983	6,481.4	4,652.6	2,170.5	23.8	-365.5
1982	5,818.9	4,382.2	1,918.9	13.9	-496.1
1981	5,042.3	4,139.0	1,756.4	6.4	-859.5
1980	6,096.8	4,851.1	1,839.1	79.1	-672.5
1979	5,514.2	4,111.4	1,624.2	65.1	-286.5
1978	5,102.4	3,490.4	1,519.6	104.7	-12.3

Note: Colour and black and white televisions do not total to equal number of televisions because some households have one or more of both.

<sup>1</sup> Includes adjustment expenses.<sup>2</sup> Excludes transactions out of Canada.

**18.33 Property fire losses, by province, 1982-84<sup>1</sup>**

Province or territory	Population	Reported fires		Loss		Loss per capita	
		Number	10-year average	\$	10-year average \$	\$	10-year average \$
1982 <sup>2</sup>							
Newfoundland	570,100	955	901	20,401,831	13,030,347	35.79	22.96
Prince Edward Island	122,800	622	515	3,954,528	3,039,107	32.20	24.85
Nova Scotia	853,100	2,589	2,351	29,164,906	21,300,445	34.19	25.19
New Brunswick	699,900	1,160	1,343	19,782,610	17,914,123	28.26	28.26
Quebec	6,486,000	17,437	19,560	293,705,611	207,805,266	45.28	29.69
Ontario	8,723,900	24,450	24,731	225,536,676	172,712,534	25.85	20.40
Manitoba	1,036,100	5,977	6,157	36,209,760	29,654,345	34.95	28.75
Saskatchewan	980,400	3,278	2,953	30,954,730	22,749,757	31.57	23.66
Alberta	2,321,900	11,823	9,797	169,106,157	77,063,049	72.83	36.82
British Columbia	2,793,200	7,623	7,423	157,296,688	87,113,232	56.31	34.13
Yukon	23,700	100	104	1,401,578	1,488,485	59.13	42.84
Northwest Territories	47,400	185	209	11,373,827	4,696,451	239.95	189.41
Canada	24,658,500	76,199	76,121	998,888,902	660,101,844	40.50	27.85
1983 <sup>3</sup>							
Newfoundland	577,900	943	913	22,401,371	14,539,304	38.76	25.43
Prince Edward Island	124,000	631	533	5,023,369	3,385,914	40.51	27.55
Nova Scotia	859,300	2,635	2,434	17,820,276	21,793,697	20.73	25.66
New Brunswick	706,700	870	1,136	13,732,841	18,328,233	19.43	28.73
Quebec	6,521,600	15,589	18,823	242,818,269	222,520,319	37.23	29.59
Ontario	8,815,900	24,038	24,663	201,637,296	181,399,084	22.87	21.24
Manitoba	1,047,200	6,581	6,356	32,203,221	31,359,956	30.75	30.31
Saskatchewan	992,700	3,251	3,038	31,770,446	25,255,721	32.00	26.12
Alberta	2,350,000	8,328	9,829	107,358,475	85,235,981	45.68	39.87
British Columbia	2,823,900	7,724	7,434	131,659,496	95,709,870	46.62	36.82
Yukon	22,300	190	115	1,437,285	1,580,418	64.45	46.70
Northwest Territories	48,400	173	199	8,104,671	5,233,431	167.45	198.96
Canada	24,889,900	70,953	75,768	815,967,016	707,876,632	32.78	29.60
1984 <sup>4</sup>							
Newfoundland	579,500	1,001	934	15,085,950	14,770,443	26.03	25.68
Prince Edward Island	125,900	650	561	3,573,988	3,599,322	28.39	29.18
Nova Scotia	871,600	2,779	2,514	21,701,737	22,530,798	24.90	26.41
New Brunswick	715,100	1,942	1,217	18,973,015	18,686,758	26.53	26.63
Quebec	6,548,500	14,283	18,207	279,044,125	237,614,252	42.61	37.27
Ontario	8,952,700	23,675	24,594	232,211,304	191,730,272	25.94	22.26
Manitoba	1,059,700	7,185	6,502	45,242,391	35,884,195	42.69	32.53
Saskatchewan	1,008,400	2,789	3,068	35,469,311	28,009,250	35.17	28.77
Alberta	2,351,000	8,233	9,806	155,937,619	97,797,328	66.33	44.74
British Columbia	2,860,400	7,237	7,405	108,859,185	100,311,570	38.06	38.00
Yukon	22,600	273	132	1,274,340	1,644,223	56.39	75.06
Northwest Territories	49,800	175	179	4,364,693	5,249,655	87.64	117.28
National Defence	238,532	220	250	2,950,866	815,171	...	...
Federal properties	200,854	288	483	4,790,729	8,008,184	...	...
Canada	25,145,200	70,730	75,465	929,479,253	757,946,643	36.96	31.38

<sup>1</sup> 1984 includes National Defence and federal properties.<sup>2</sup> Official census population published by Statistics Canada, December 1982.<sup>3</sup> Official census population published by Statistics Canada, July 1983.<sup>4</sup> Official census population published by Statistics Canada, July 1984.**18.34 Fire losses by cause of fire, 1982-84**

Reported cause of fire	Fires reported	Property loss \$'000	Injuries				Deaths				
			Fire-fighter	Men	Women	Children	Un-classified	Fire-fighter	Men	Women	Children
1982											
Arson or other set fires	9,750	180,527.4	324	130	45	24	—	—	28	12	—
Misuse of source of ignition											
Undetermined	241	4,647.8	—	—	—	—	—	—	—	—	—
Smoker's material	6,213	45,228.1	95	193	91	23	6	—	69	46	9
Child playing with matches	1,967	15,470.6	43	27	31	31	—	—	—	2	24
Miscellaneous	7,656	76,698.8	133	271	130	55	2	—	41	17	19

## 18.34 Fire losses by cause of fire, 1982-84 (concluded)

Reported cause of fire	Fires reported	Property loss \$'000	Injuries					Deaths				
			Fire-fighter	Men	Women	Children	Un-classified	Fire-fighter	Men	Women	Children	
Misuse of material ignited	3,349	47,935.8	70	219	89	26	2	—	23	9	4	
Mechanical, electrical failure, malfunction	19,853	221,616.2	212	253	61	24	4	—	36	24	15	
Construction, design or installation deficiency	2,784	33,450.4	40	17	10	3	—	—	17	8	8	
Misuse of equipment	769	8,566.8	4	10	4	1	2	—	2	1	—	
Human failing												
Undetermined	85	1,600.5	—	1	—	—	—	—	—	—	—	
Asleep	333	2,705.5	5	24	6	1	1	—	4	2	1	
Suspected impairment by alcohol, drugs, medication	183	1,961.9	2	25	7	—	2	—	12	7	4	
Miscellaneous	3,372	22,906.0	21	116	69	15	11	—	34	17	12	
Vehicle accident	281	2,850.3	1	7	—	—	—	—	8	5	2	
Miscellaneous	8,857	176,398.1	116	124	29	13	—	—	47	21	16	
Undetermined	10,506	156,324.7	219	169	72	12	4	—	37	14	18	
<b>Total</b>	<b>76,199</b>	<b>998,888.9</b>	<b>1,285</b>	<b>1,586</b>	<b>644</b>	<b>228</b>	<b>34</b>	<b>—</b>	<b>358</b>	<b>185</b>	<b>132</b>	
<b>1983</b>												
Arson or other set fires	9,177	146,197.6	293	102	53	10	12	—	25	7	7	
Misuse of source of ignition												
Undetermined	243	3,057.9	—	—	—	—	—	—	—	—	—	
Smoker's material	1,529	11,672.8	17	69	32	7	4	—	36	22	3	
Child playing with matches	1,342	9,973.0	46	27	21	51	—	—	3	1	16	
Miscellaneous	9,546	78,031.3	150	344	78	44	—	—	73	28	20	
Misuse of material ignited	4,779	36,276.2	85	280	138	26	4	—	33	12	10	
Mechanical, electrical failure, malfunction	18,980	171,104.8	171	188	57	24	4	1	17	15	12	
Construction, design or installation deficiency	2,859	27,886.0	46	36	12	6	—	—	4	1	1	
Misuse of equipment	1,548	9,762.4	24	39	16	5	1	—	1	3	9	
Human failing												
Undetermined	134	2,359.6	3	1	—	—	—	—	1	1	2	
Asleep	151	982.2	1	9	1	—	1	—	5	3	3	
Suspected impairment by alcohol, drugs, medication	86	773.7	1	12	7	7	11	—	9	5	3	
Miscellaneous	3,524	32,515.6	46	116	41	17	—	—	27	11	7	
Vehicle accident	513	3,932.8	2	19	4	—	—	—	2	—	—	
Miscellaneous	8,157	122,079.0	163	161	55	16	1	1	20	6	10	
Undetermined	8,385	159,362.2	197	345	108	39	2	—	32	18	13	
<b>Total</b>	<b>70,953</b>	<b>815,967.0</b>	<b>1,245</b>	<b>1,748</b>	<b>723</b>	<b>252</b>	<b>40</b>	<b>2</b>	<b>288</b>	<b>133</b>	<b>116</b>	
<b>1984</b>												
Arson or other set fires	9,411	129,617.0	286	119	60	9	—	1	23	16	5	
Misuse of source of ignition												
Undetermined	390	14,389.9	4	13	—	1	3	—	1	—	—	
Smoker's material	1,566	11,800.7	22	55	20	10	5	—	16	17	6	
Child playing with matches	1,290	8,761.7	41	24	27	33	—	—	5	3	12	
Miscellaneous	8,634	67,254.3	186	291	150	26	1	—	35	26	16	
Misuse of material ignited	5,428	35,608.8	91	347	153	47	2	—	19	2	7	
Mechanical, electrical failure, malfunction	18,575	237,550.1	182	240	104	16	13	1	24	13	18	
Construction, design or installation deficiency	2,541	28,475.0	46	27	3	1	—	—	—	2	1	
Misuse of equipment	1,502	10,466.0	19	45	11	1	—	—	3	1	3	
Human failing												
Asleep	148	722.4	—	10	5	—	1	—	5	—	—	
Suspected impairment by alcohol, drugs, medication	154	1,653.3	2	24	7	—	1	—	18	3	—	
Miscellaneous	4,553	68,402.4	119	162	61	22	15	1	86	37	22	
Vehicle accident	504	6,158.3	19	28	4	—	1	—	3	—	1	
Miscellaneous	16,034	308,619.4	336	384	115	51	2	6	61	37	42	
<b>Total</b>	<b>70,730</b>	<b>929,479.3</b>	<b>1,353</b>	<b>1,769</b>	<b>720</b>	<b>217</b>	<b>44</b>	<b>9</b>	<b>299</b>	<b>157</b>	<b>133</b>	



**18.35 Fire losses by type of property, 1982-84**

Type of property	1982		1983		1984	
	Fires reported	Property loss \$'000	Fires reported	Property loss \$'000	Fires reported	Property loss \$'000
Residential	35,235	385,781.4	34,517	359,880.2	33,185	347,821.8
Assembly	2,211	87,064.6	1,947	60,482.9	2,020	72,799.4
Institutional	579	4,110.1	552	7,334.4	636	4,152.9
Business and personal services	614	22,314.4	599	17,831.0	615	14,480.6
Mercantile	2,290	93,900.4	2,157	75,021.7	2,106	83,576.7
Manufacturing	1,603	110,454.6	1,710	99,065.9	1,877	160,346.6
Storage	2,977	91,834.0	1,819	51,339.6	1,922	61,667.8
Special properties	26,205	103,996.4	24,459	78,653.8	24,902	98,798.2
Farm properties	1,360	46,566.7	1,501	46,336.5	1,567	50,080.9
Miscellaneous	3,125	52,866.5	1,692	20,021.0	1,900	35,754.4
Total	76,199	998,888.9	70,953	815,967.0	70,730	929,479.3

**Sources**

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18.5, 18.6 Communications, Royal Canadian Mint.

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CHAPTER 19

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# GOVERNMENT

## CHAPTER 19

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# GOVERNMENT

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## THEN



In 1887, 21.40 p.c. of the population were eligible to vote, an increase of 2.80 p.c. over the 18.60 p.c. reported in 1882. This increase was attributed to "the Franchise Act of 1885 "which broadened the franchise very considerably." (1895)

"... Any person proved to have illegally voted may be compelled by a Court of Law or Election Committee to disclose the name of the person for whom he has so voted. In case of a protest the

ballots are not to be destroyed until it has been determined. Votes are to be given by ballots enclosed in envelopes, no voter being entitled to deposit more than one envelope in the box." (1872)

### DOMINION GOVERNMENT IMMIGRATION OFFICE.

209 BONAVENTURE STREET,

J. J. DAILEY,  
*Agent.*

W. McNICHOLS,  
*Asst. Agent.*

— ALSO —

### DOMINION GOVERNMENT IMMIGRATION STATION,

TANNERY JUNCTION,

 *Where Immigrants arrive by Special Train.*

## NOW

The Right Honourable Jeanne Sauvé, the 23rd Governor General since Confederation, is Canada's first woman Governor General. She was appointed by Queen Elizabeth on December 23, 1983 and took office on May 14, 1984.

While the composition of the House of Commons is based on the principle of representation by population, Senate membership is based on the principle of equal regional representation.

The right to vote in a federal election is conferred upon all Canadian citizens who have reached age 18 and ordinarily live in the electoral district on the date fixed for the beginning of the enumeration at the election.

## CHAPTER 19

# GOVERNMENT

### 19.1 Organization of the federal government

The Canadian federal state of 10 provinces and two territories had its foundation in an act of the British Parliament, the British North America Act, 1867, renamed the Constitution Act, 1867 by the Constitution Act, 1982. The latter act contains the Canadian Charter of Rights and Freedoms and other new provisions, including the procedure for amending the constitution of Canada. The Constitution Act, 1867 not only established the institutions through which legislative, executive and judicial powers are exercised in Canada but also established a federal form of government. A central government — the federal government — has legislative jurisdiction primarily over matters of national concern and over those matters not assigned to the provinces. The 10 provincial governments are assigned specific areas of legislative jurisdiction, including municipal institutions.

In Canada there is a fusion of executive and legislative powers. Formal executive power is vested in the Queen, whose authority is delegated to the Governor General, her representative. Legislative power is vested in the Parliament of Canada which consists of the Queen, an appointed upper house (the Senate) and a lower house (the House of Commons) elected by universal adult suffrage. The independence of the judiciary is safeguarded through the constitutional provision that superior court judges are appointed by the Governor-in-Council, that is, by the Governor General on advice of the Cabinet, and that they hold office during good behaviour and cannot be removed unless both houses of Parliament, the Cabinet and the Governor General agree.

#### 19.1.1 Responsible government

In the Canadian system, where the executive is part of Parliament, democratic principles could not be adhered to without the constitutional convention that the government is responsible to the House of Commons.

**Federal elections** are governed by the Canada Elections Act and are held following the dissolution of Parliament. A dissolution of Parliament is a prerogative of the Governor General of Canada, acting on the advice of the Prime Minister. Parliament may be dissolved at any time but it has never yet been dissolved prior to meeting at least once. The normal courses of Parliament range from three to four years while an election must be held at least five years from the date of the return of the writs of election. It is a fundamental convention of the Canadian system, in which the executive is part of Parliament, that if the government of the day loses the confidence of the House of Commons, it must resign or the Prime Minister must ask the Governor General to dissolve Parliament and call a general election.

Although there are conventions that help in deciding when the government has lost the confidence of the House, all doubt is removed when the government is defeated on a motion on which it had explicitly staked its life or when a motion of non-confidence in the government is passed. If the government resigns, the Governor General can call on the leader of the opposition (who is usually the leader of the political party that has the second largest number of seats in the House of Commons) to form a new government. If a government that has lost the confidence of the House of Commons and has been granted a dissolution is defeated in the ensuing general election and if no clear majority is elected, the government has two choices — it can remain in office and seek the confidence of the Commons when it meets or it can resign at once. If it resigns, the Governor General will normally ask the leader of another party, usually the one that has won the most seats, to form a new government. The primary responsibility of the Governor General in either circumstance is to provide the nation with a government capable of carrying on with the support of the House of Commons.

Once Parliament is dissolved the chief electoral officer issues writs of election to returning

officers in the various constituencies across Canada. The number of constituencies is based on the general principle of representation according to population. This principle is based on overall provincial populations and the population of individual constituencies can vary. Consequently following each decennial Census there is a redistribution of constituencies as well as a general adjustment in the number of seats in the House of Commons to reflect population changes.

Canada has a system of universal suffrage and Parliament is democratically elected. All Canadians above the age of 18 are eligible to vote in federal elections. The electoral system has been modified several times and a recent change was the addition of political parties to the ballots. Another feature of the system is advance polls and proxy voting for individuals not able to vote at their local polling stations on election day.

**Political parties** have developed over time as the political power of legislatures grew and there was a need to establish some stability in government. Canada has a multi-party system and there is no restriction on the number of political parties that may contest federal elections. Those political parties wishing to endorse candidates for an election must register with the office of the chief electoral officer. A new political party wishing to be identified on the ballot paper must have candidates officially nominated in at least 50 electoral districts by the 30th day before polling day.

At various times a number of parties representing a wide spectrum of viewpoints have presented candidates and elected members to Parliament. Following the September 4, 1984 general election four parties were represented in the House of Commons: the Progressive Conservatives, who form the government; the Liberals, who are the official opposition; the New Democratic Party; and one Independent. Political parties are not all organized in the same fashion and their methods of operations have evolved over time in accordance with the wishes of their members. Every political party has a leader who speaks on behalf of the party both within and outside the House of Commons.

The Prime Minister and the Cabinet are generally members of the House of Commons, although some may be senators. They are, formally speaking, the Queen's advisers. In fact virtually no significant actions can be taken by the Queen or her representative in Canada, the Governor General, without Cabinet advice. The Prime Minister and the Cabinet determine executive policies and are responsible for them

to the House of Commons. The Queen and the Governor General have the traditional rights to be consulted, to encourage and to warn the government.

The needs and wishes of citizens are conveyed primarily to members of Parliament or directly or indirectly to Cabinet Ministers. Requests for government action may originate from individuals, political parties or pressure groups; members of Parliament, Cabinet Ministers and public servants may take the initiative in suggesting the adoption of policies and programs in the public interest.

Determination of public policy rests with the Cabinet but begins generally with the formulation of policy by individual ministers. Working in cooperation with public servants, a minister formulates policy proposals for consideration by his colleagues in the Cabinet. The Cabinet chooses those policies it wishes to implement, may itself formulate policies, or may select a policy from among the alternatives submitted.

**Rule of law.** Conforming with the principle of the rule of law, all executive acts must be authorized by law, and laws are enacted by Parliament. Executive acts may be carried out under a statute which specifies how a policy is to be implemented or by means of an order-in-council under a statute which authorizes the Governor-in-Council (i.e., the Governor General acting on advice from Cabinet) to undertake specific acts. Much of the activity of the public service is authorized through yearly appropriation acts approving the expenditure of public funds for specific purposes. Apart from the appropriation of funds, Parliament is concerned with discussion and authorization of policy submitted for its approval by the government. Approval of policies is mainly through the enactment of legislation. The rules of procedure are included in the standing orders of the House of Commons.

A significant feature of the parliamentary process is that Cabinet Ministers have seats in Parliament and thus share in the exercise of legislative power. The majority of legislation enacted by Parliament is submitted by the government; the Constitution provides that all financial measures must originate in the Commons.

The judiciary applies the laws enacted by Parliament. Because Parliament is supreme in the Canadian government, the judiciary must apply the law as Parliament has enacted it, unless a law is declared to be unconstitutional, or not within the legislative jurisdiction of Parliament or of the legislature that enacted it.

**Government administration.** Administration of legislation and of government policies is carried



out through a public service comprising employees organized in departments and ministries of government and special boards, commissions, Crown corporations and other agencies. Legislation and tradition have developed a non-partisan public service; employee tenure is unaffected by changes in government. The only direct contact public servants have with Parliament occurs when they are called as witnesses before parliamentary committees; they do not, by convention, express opinions on public policy but usually appear as experts and to explain existing policy. Public servants who head agencies such as the Public Service Commission, the office of the Auditor General, the office of the commissioner of official languages, the Library of Parliament or the office of the chief electoral officer are responsible directly to Parliament. They are not subject to direction by the government on matters of policy and may appear before parliamentary committees to explain the policies of their agencies.

Growth in number, variety and complexity of the demands placed on the government requires it not only to adjust its policies but to make changes in the organization of the public service so that required policies can be implemented. Major reorganizations of the public service were authorized by a series of government organization acts in 1966, 1969, 1970, 1976, 1979 and 1982.

## 19.2 The executive

### 19.2.1 The Crown

**The Sovereign.** Since Confederation Canada has had six sovereigns: Victoria, Edward VII, George V, Edward VIII, George VI and Elizabeth II. The present sovereign is not only Queen of Canada but is also head of state of other countries in the Commonwealth as well as being the formal head of the Commonwealth. Her title for Canada was approved by Parliament and established by a royal proclamation on May 28, 1953: Elizabeth the Second, by the grace of God of the United Kingdom, Canada and her other realms and territories, Queen, Head of the Commonwealth, Defender of the Faith.

From time to time the Queen personally discharges the functions of the Crown in Canada, such as the appointment of the Governor General, which Her Majesty does on the recommendation of the Prime Minister of Canada. During a royal visit, the Queen may participate in ceremonies normally carried out in her name by the Governor General, such as the opening of Parliament or the granting of a general amnesty.

**The Governor General** is the representative of the Crown in Canada. The Right Honourable Jeanne Sauvé, the 23rd Governor General since Confederation and Canada's first woman Governor General, was appointed by Queen Elizabeth on December 23, 1983 and took office on May 14, 1984. Constitutionally, the Queen of Canada is the Canadian head of state but the Governor General fulfils her role on her behalf. The letters patent revised and issued under the Great Seal of Canada on October 1, 1947 authorized and empowered the Governor General, on the advice of the Canadian ministers to exercise all powers and authorities lawfully belonging to the Sovereign in respect of Canada.

Following are the Governors General of Canada since Confederation, with dates of assumption of office:

The Viscount Monck of Ballytramon, July 1, 1867

The Baron Lisgar of Lisgar and Bailieborough, February 2, 1869

The Earl of Dufferin, June 25, 1872

The Marquis of Lorne, November 25, 1878

The Marquis of Lansdowne, October 23, 1883

The Baron Stanley of Preston, June 11, 1888

The Earl of Aberdeen, September 18, 1893

The Earl of Minto, November 12, 1898

The Earl Grey, December 10, 1904

Field Marshal HRH The Duke of Connaught, October 13, 1911

The Duke of Devonshire, November 11, 1916

General The Baron Byng of Vimy, August 11, 1921

The Viscount Willingdon of Ratton, October 2, 1926

The Earl of Bessborough, April 4, 1931

The Baron Tweedsmuir of Elsfield, November 2, 1935

Major General The Earl of Athlone, June 21, 1940

Field Marshal The Viscount Alexander of Tunis, April 12, 1946

The Right Honourable Vincent Massey, February 28, 1952

General The Right Honourable Georges P. Vanier, September 15, 1959

The Right Honourable Roland Michener, April 17, 1967

The Right Honourable Jules Léger, January 14, 1974

The Right Honourable Edward Schreyer, January 21, 1979

The Right Honourable Jeanne Sauvé, May 14, 1984.

One of the most important responsibilities of the Governor General is to ensure that the country always has a government. If the office of the Prime Minister becomes vacant because of death

or resignation, the Governor General must see that it is filled and that a new government is formed.

As the Queen's representative, the Governor General summons, prorogues and dissolves Parliament on the advice of the Prime Minister. The Governor General signs orders-in-council, commissions and other state documents, and gives assent to bills that have been passed in both houses of Parliament and which thereby become acts of Parliament with the force of law. In virtually all cases the Governor General is bound by constitutional convention to carry out these duties in accordance with the advice of the responsible ministers. Should the Governor General not wish to accept their advice, and should they maintain that advice, the only alternative is to replace the existing government with a new government but only if the principle of responsible government could be upheld. Thus the Governor General's discretion in choosing another government is strictly limited to a situation in which a person other than the existing Prime Minister could command the confidence of the House of Commons.

**Canadian honours system.** An exclusively Canadian honours system was introduced in 1967 with the establishment of the Order of Canada. The honours system was enlarged in 1972 with the addition of the Order of Military Merit and three decorations to be awarded in recognition of acts of bravery.

### 19.2.2 The Privy Council

The Constitution Act, 1867 (Sect. 11) provides for a council to aid and advise in the Government of Canada, called the Queen's Privy Council for Canada. The council that in fact advises the Queen's representative, the Governor General, is the Cabinet, an informal committee of the Privy Council composed of Ministers, which commands the support of a majority of the House of Commons.

Membership in the Privy Council is for life and includes Cabinet Ministers of the government of the day, former Cabinet Ministers, the Chief Justice of Canada and former Chief Justices, former speakers of the Senate and the House of Commons of Canada and occasionally other distinguished persons, including members of the royal family, past and present Commonwealth Prime Ministers and premiers of provinces. As a condition of office, all Ministers must first be sworn into the Privy Council. A member is styled "Honourable" and may use the initials PC after his name. The Governor General, the Chief Justice of Canada and the

Prime Minister of Canada automatically are given the title "Right Honourable" by royal warrant when they take office.

The Privy Council as a whole has met on only a few ceremonial occasions, for example, on March 27, 1981 to receive the Queen's consent to the marriage of the Prince of Wales, as heir to the Canadian Crown, and Lady Diana Spencer. Its constitutional responsibilities to advise the Crown on government matters are discharged exclusively by the Cabinet. The legal instruments through which executive authority is exercised are called orders-in-council. A number of Ministers, acting as a committee of the Privy Council, make a submission to the Governor General for approval which by convention is given in almost all circumstances; with this approval, the submission becomes an order-in-council.

The office of president of the Privy Council was formerly occupied, more often than not, by the Prime Minister; in recent years, it has been occupied by another Minister who is usually also government leader in the House of Commons, with the broad responsibility of directing house business, including supervision of the government's replies to questions in the House and of parliamentary returns in general, and a special responsibility of ensuring that Parliament, through its operations and organization of business, can effectively function under the increasing pressure of modern government.

### 19.2.3 The Prime Minister

The Prime Minister is the leader of the political party requested by the Governor General to form the government, which almost always means the leader of the party with the strongest representation in the Commons. His position is one of exceptional authority stemming in part from the success of the party at an election. The Prime Minister chooses his Cabinet. When a member of Cabinet resigns, the remainder of the Cabinet is undisturbed; when the Prime Minister vacates his office, this act normally carries with it the resignation of the Cabinet.

Part of the Prime Minister's authority lies in his power to recommend to the Governor General dissolution of Parliament. This right, which in most circumstances permits him to precipitate an election, is a source of considerable power both in his dealings with colleagues and with the opposition parties in the House. The Prime Minister is also responsible for organization of the Cabinet and its committees; for the organization and functions of

his own office, as well as the Privy Council office and the federal-provincial relations office; and for the allocation of responsibilities between Ministers.

Another source of the Prime Minister's authority derives from the appointments which he recommends to the Governor General, including privy councillors, Cabinet Ministers, lieutenant-governors of the provinces, provincial administrators, speakers of the Senate, chief justices of all courts, senators and certain senior executives of the public service. The Prime Minister also recommends the appointment of a new Governor General to the Sovereign, although this normally follows consultation with the Cabinet.

Following are the Prime Ministers since Confederation, with dates of administrations:

Rt. Hon. Sir John Alexander Macdonald, July 1, 1867 — November 5, 1873

Hon. Alexander Mackenzie, November 7, 1873 — October 9, 1878

Rt. Hon. Sir John Alexander Macdonald, October 17, 1878 — June 6, 1891

Hon. Sir John Joseph Caldwell Abbott, June 16, 1891 — November 24, 1892

Rt. Hon. Sir John Sparrow David Thompson, December 5, 1892 — December 12, 1894

Hon. Sir Mackenzie Bowell, December 21, 1894 — April 27, 1896

Rt. Hon. Sir Charles Tupper, May 1, 1896 — July 8, 1896

Rt. Hon. Sir Wilfrid Laurier, July 11, 1896 — October 6, 1911

Rt. Hon. Sir Robert Laird Borden, October 10, 1911 — October 12, 1917 (Conservative Administration)

Rt. Hon. Sir Robert Laird Borden, October 12, 1917 — July 10, 1920 (Unionist Administration)

Rt. Hon. Arthur Meighen, July 10, 1920 — December 29, 1921 (Unionist — National Liberal and Conservative Party)

Rt. Hon. William Lyon Mackenzie King, December 29, 1921 — June 28, 1926

Rt. Hon. Arthur Meighen, June 29, 1926 — September 25, 1926

Rt. Hon. William Lyon Mackenzie King, September 25, 1926 — August 6, 1930

Rt. Hon. Richard Bedford Bennett, August 7, 1930 — October 23, 1935

Rt. Hon. William Lyon Mackenzie King, October 23, 1935 — November 15, 1948

Rt. Hon. Louis Stephen St-Laurent, November 15, 1948 — June 21, 1957

Rt. Hon. John George Diefenbaker, June 21, 1957 — April 22, 1963

Rt. Hon. Lester Bowles Pearson, April 22, 1963 — April 20, 1968

Rt. Hon. Pierre Elliott Trudeau, April 20, 1968 — June 4, 1979

Rt. Hon. Joe Clark, June 4, 1979 — March 3, 1980

Rt. Hon. Pierre Elliott Trudeau, March 3, 1980 — June 30, 1984

Rt. Hon. John Napier Turner, June 30, 1984 — September 17, 1984

Rt. Hon. Martin Brian Mulroney, September 17, 1984 — . . .

#### 19.2.4 The Cabinet

The Cabinet's primary responsibility is to determine priorities among the demands expressed by the people and to define policies to meet those demands. The Cabinet consists of all the Ministers who are chosen by the Prime Minister, generally from among members of the House of Commons, although some Cabinet Ministers are usually chosen from the Senate including the leader of the government in the Senate. Ministers who are members of Parliament usually head government departments because the constitution provides that measures for appropriating public funds or imposing taxes must originate in the Commons. If a senator heads a department, another Minister in the Commons has to speak on his behalf on its affairs.

Each Cabinet Minister usually assumes responsibility for one of the departments of government, although a Minister may hold more than one portfolio at the same time or he may hold one or more portfolios and one or more acting portfolios. A Minister without portfolio may be invited to join the Cabinet because the Prime Minister wishes to have him or her in the Cabinet without the heavy duties of running a department, or to provide a suitable balance of regional representation, or for any other reason that the Prime Minister sees fit. Because of Canada's cultural and geographical diversity, the Prime Minister gives close attention to geographic representation in the Cabinet.

With the enactment of the Ministries and Ministers of State Act (Government Organization Act, 1970), five categories of ministers of the Crown may be identified: departmental ministers, ministers with special parliamentary responsibilities, ministers without portfolio, and three types of ministers of state. Ministers of state for designated purposes may head a ministry of state created by proclamation. They are charged with developing new and comprehensive policies in areas of particular urgency and importance and have a mandate determined



by the Governor-in-Council. They may have powers, duties and functions and exercise supervision and control of elements of the public service, and may seek parliamentary appropriations to cover the cost of their staff and operations. Other ministers of state may be appointed to assist departmental ministers with their responsibilities. They may have powers, duties and functions delegated to them by the departmental minister, who retains ultimate legal responsibility. Ministers of state of a third group may be appointed under the act to be members of the ministry without being assigned to assist a particular minister. All ministers are appointed on the advice of the Prime Minister by commissions of office issued by the Governor General under the Great Seal of Canada, to serve and to be accountable to Parliament as members of the government and for any responsibility that might be assigned to them by law or otherwise.

In Canada, almost all executive acts of the government are carried out in the name of the Governor-in-Council. The Cabinet, or a committee of ministers acting as a committee of the Privy Council, makes submissions for approval to the Governor General, who is bound by the constitution in nearly all circumstances to accept them. Although some are routine and require little discussion in Cabinet, others are of major significance and require extensive deliberation, sometimes covering months of meetings of officials, Cabinet committees and the full Cabinet.

The Cabinet must consider and approve the policy underlying each piece of proposed legislation. After proposed legislation is drafted it must be examined in detail. Between 40 and 60 bills are normally considered by Cabinet during a parliamentary session. Policies to be adopted in fundamental constitutional changes or at a major international conference are among the issues which, on occasion, demand this extensive and detailed consideration.

**The Cabinet committee system.** The nature and large volume of policy issues to be decided on by Cabinet do not lend themselves to discussion by 30 or more ministers. Growing demands on the executive have stimulated delegation of some Cabinet functions to its committees.

Cabinet committees provide a forum for thorough study of policy and expenditure proposals, although the Cabinet remains the prime focus of decision-making. Membership of Cabinet committees is public but the same rules of secrecy that apply to Cabinet deliberations apply to Cabinet committees. The Prime Minister determines the establishment of Cabinet committees, their

membership and terms of reference. Attendance by departmental officials during Cabinet committee meetings is strictly limited. The secretariats of the committees are provided by the Privy Council office and the secretary of a Cabinet committee is usually also an assistant secretary to the Cabinet. Treasury Board, which is a Cabinet committee and a committee of the Privy Council established by statute is an exception; it has its own secretariat headed by a secretary who has the status of a deputy minister.

Under the direction of the Prime Minister, the secretary to the Cabinet prepares agenda and refers memoranda to Cabinet to the appropriate committee for study and report to the full Cabinet. Except where the Prime Minister instructs otherwise, all memoranda to Cabinet are submitted over the signature of the Minister concerned.

The terms of reference of Cabinet committees cover virtually the total area of government responsibility. All memoranda to Cabinet are first considered by a Cabinet committee, except when they are of exceptional urgency or when the Prime Minister directs otherwise, in which case an item may be considered immediately by the Cabinet committee on priorities and planning or the full Cabinet.

On the initiative of a Minister a policy proposal is prepared, the implementation of which will require new legislation or the amendment of existing legislation. The proposal is addressed formally to Cabinet, but is considered first by the relevant policy committee. If approved, the proposal goes forward as a recommendation for confirmation or consideration by Cabinet.

If the committee's decision is confirmed, the Justice Department is instructed to prepare a draft bill expressing in legal terms the intent of the policy proposal. When the draft bill has the Minister's approval, he submits it to the Cabinet committee on legislation and House planning where it is examined from a legal rather than a policy point of view. Once this committee agrees that the bill is acceptable in all respects, or with modifications, and could be introduced in Parliament, it reports this to Cabinet. If Cabinet confirmation is given, the Prime Minister initials the bill and it is then introduced either in the Senate or the House of Commons, depending on constitutional and political considerations.

The order and manner in which a bill is considered in Parliament is the responsibility of the president of the Privy Council and government House leader who negotiates these matters with his counterparts in the opposition parties. If a bill is to be introduced in the Senate, the president of the Privy Council will discuss questions such as



timing and tactics with the leader of the government in the Senate, who in turn will negotiate consideration of the bill with the opposition leader in the Senate.

**The Privy Council office** is a secretariat providing staff support to the special committee of the Privy Council, to the Cabinet and to the Prime Minister. For the purposes of the Financial Administration Act it is considered a government department. Since the Prime Minister is, in effect, chairman of the Cabinet, he is the Minister responsible for the Privy Council office. The work of the Privy Council office is directed by a public servant known as the clerk of the Privy Council and secretary to the Cabinet. He is the senior member of the public service of Canada.

**Parliamentary secretaries.** The Parliamentary Secretaries Act of June 1959 provided for the appointment of 16 parliamentary secretaries from among the members of the Commons to assist Ministers. That act was amended by the Government Organization Act, 1970, which allows the number of parliamentary secretaries to equal the number of Ministers who hold offices listed in Section 4 of the Salaries Act, that is, Ministers with departmental responsibilities, the Prime Minister, the leader of the government in the Senate and the president of the Privy Council. A parliamentary secretary works under direction of a Minister, but has no legal authority in association with the department, and is not given acting responsibility or any of the powers, duties and functions of a Minister in that Minister's absence or incapacity. Parliamentary secretaries are appointed by the Prime Minister.

### 19.3 The legislature

The federal legislative authority is vested in the Parliament of Canada — the Queen, the Senate and the House of Commons. Bills may originate in either the Senate or the House of Commons, subject to Section 53 of the Constitution Act, 1867, which provides that bills for the appropriation of any part of the public revenue or the imposition of any tax or impost shall originate in the House of Commons. Bills must pass both houses and receive royal assent before becoming law. In practice, most public bills originate in the House of Commons although, at the request of the government, more have recently been introduced in the Senate in order that they may be dealt with there while the Commons is engaged in other matters such as the debate on the speech from the throne. Private bills may originate in either the House of Commons or the Senate. The Senate may delay, amend or even refuse to pass

bills sent to it from the Commons, but differences are usually settled without serious conflict.

**The law-making process.** If a bill is introduced and approved in the House of Commons, it is then introduced in the Senate and follows a similar procedure. If a bill is first introduced in the Senate, the reverse procedure is followed. There are three types of bills: public bills introduced by the government; public bills introduced by private members of Parliament; and private bills introduced by private members of Parliament. All bills must pass through various stages before they become law. These stages provide Parliament with opportunities to examine and consider all bills both in principle and in detail. Each type is treated in a slightly different manner, and there are even differences in procedure when the House deals with government bills introduced pursuant to supply and ways and means motions on the one hand, and other government bills on the other. The following outline describes the procedure for a government bill introduced in the House of Commons.

The sponsoring minister gives notice that he intends to introduce a bill on a given subject. Not less than 48 hours later he moves for leave to introduce the bill and that the bill be given first reading. This is normally granted automatically because this first step does not imply approval of any sort. It is only after first reading that the bill is ordered printed for distribution to the members.

At a later sitting the minister moves that the bill be given second reading and that it be referred to an appropriate committee of the House of Commons. A favourable vote on the motion for second reading represents approval of the bill in principle so there is often an extensive debate, which, according to the procedures of the Commons, must be confined to the principle of the bill. The debate culminates in a vote which, if favourable, results in the bill being referred to the appropriate committee of the House, where it is given clause-by-clause consideration.

At the committee stage, expert witnesses and interested parties may be invited to give testimony pertaining to the bill, and the proceedings may cover many weeks.

The House committee prepares and submits a report to the House of Commons which must decide whether to accept the report, including any amendments the committee has made to the bill. At the report stage any member may, on giving 24 hours notice, move an amendment to the bill. All such amendments are debated and are usually put to a vote. Following that, a motion "that the

bill be concurred in" or "that the bill, as amended, be concurred in", is put to the vote.

After this report stage, the Minister moves that the bill be given third reading and passage. Debate on this motion is limited to whether the bill should be given third reading. Amendments are permitted at this stage but they must be of a general nature, similar to those allowed on second reading. If the vote is favourable, the bill is introduced in the Senate where it goes through a somewhat similar though not identical process, since each chamber has its own rules of procedure. After the bill has been passed by both houses, it is given royal assent by the Governor General or by his or her deputy, the Chief Justice, or one of the other judges of the Supreme Court of Canada. The assent ceremony takes place in the Senate chamber in the presence of representatives of both houses of Parliament. The bill comes into force as soon as it is assented to, unless there is a provision in the bill stating that it will come into force on the day on which it is officially proclaimed.

**Duration and sessions of Parliaments.** The length and sessions of the 27th to the 33rd Parliament, covering sessions since January 1966, are given in Table 19.1.

### 19.3.1 The Senate

While the composition of the House of Commons is based on the principle of representation by population, Senate membership is based on the principle of equal regional representation. This feature of the Senate reflects one of its primary purposes: to protect the interests of the less populous regions of Canada in matters under federal jurisdiction. Accordingly the 104 seats in the Senate are distributed on a regional basis as follows: Ontario, 24; Quebec, 24; the Maritime provinces, 24 (10 each from Nova Scotia and New Brunswick and four from Prince Edward Island); Newfoundland, six; the Western provinces, 24 (six each from Manitoba, Saskatchewan, Alberta and British Columbia); and the Yukon and Northwest Territories, one each.

The Senate performs three basic functions. In its legislative role, its major work is in the revision of government bills, especially complex, technical bills, either passed by the House of Commons or introduced in the Senate itself. Committees composed of highly experienced senators study each bill and recommend amendments where necessary. The amendments, often of a technical or clarifying nature, are usually accepted by the House of Commons.

In its deliberative role, the Senate provides a national forum for the discussion of public issues

and the airing of regional concerns and grievances from all parts of Canada. On two days' notice, a senator can start a debate, with no time limits, on any subject.

Third is the Senate's investigative function. Inquiries into major social and economic issues by its standing and special committees have, over the years, produced reports that have often been followed by remedial legislation or changes in government policy.

The Senate's legislative powers and duties are identical to those of the House of Commons with two exceptions: one is that appropriation or tax bills (ordinarily called money bills) must originate in the House of Commons; the other is that, since the passage of the Constitution Act, 1982, constitutional amendments may be adopted without the concurrence of the Senate after a period of 180 days.

The Senate's legislative power is often referred to as its veto power or absolute veto. These expressions are commonly understood to mean the constitutional right of the Senate to defeat or refuse to act upon a bill passed by the House of Commons. The House of Commons, on the other hand, has the same right to defeat or refuse to act upon a bill passed by the Senate. Since every bill, to become law, must be passed by both Houses, it follows that each House, in effect, has the same legislative or veto power. This legislative power includes the power to amend bills.

It is a long-standing practice in the Senate, when major government bills are introduced in the House of Commons, to refer the "subject-matter" of such bills to Senate committees in advance of their formal introduction in the Senate. This gives the Senate the time it needs to conduct thorough studies and to make known its recommendations for changes while a bill is still before the Commons.

Senators are appointed, in the Queen's name, by the Governor General on the advice of the Prime Minister. Until 1965, senators were appointed for life; now the retirement age is 75.

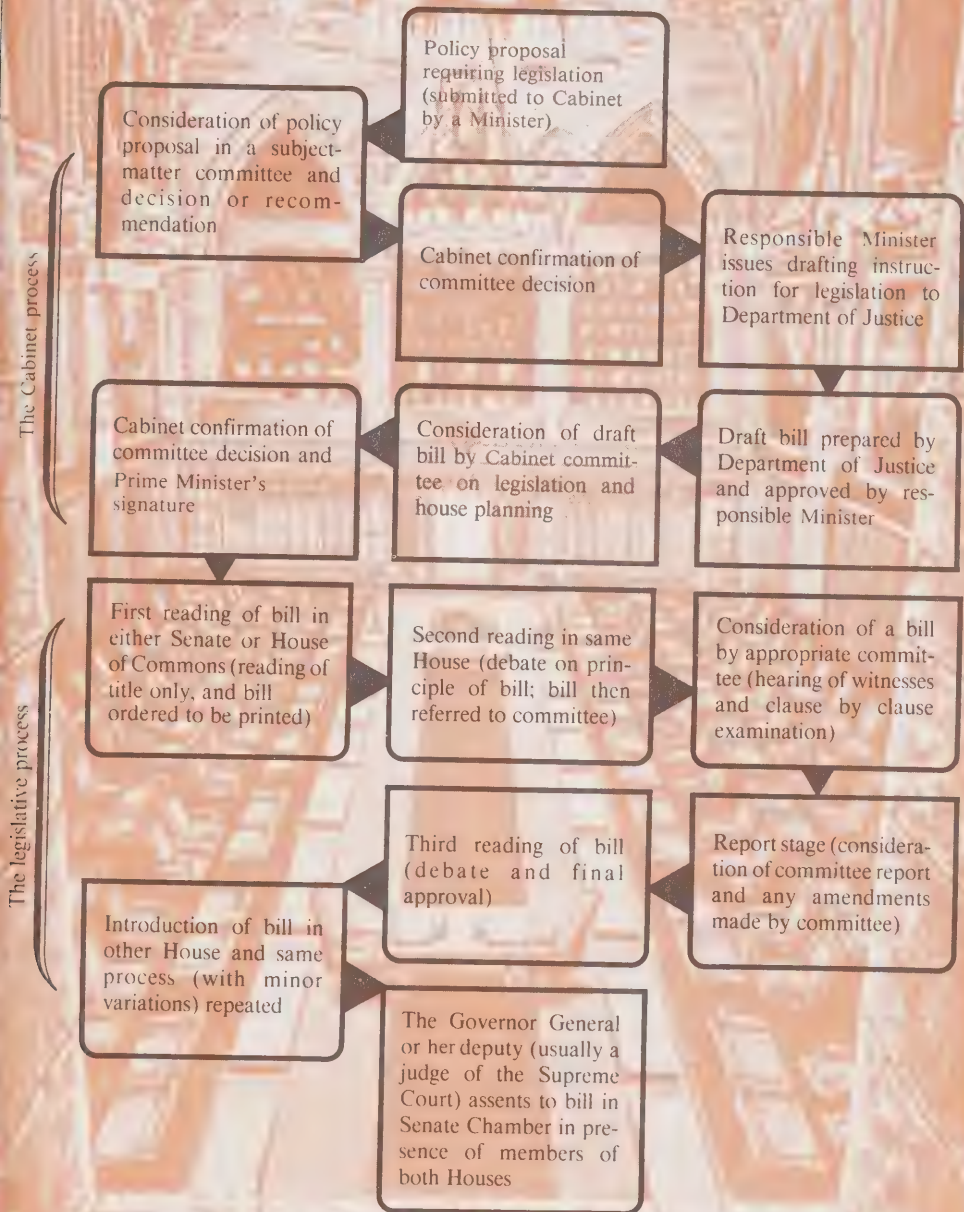
Representation in the Senate has grown from 72 at Confederation to its present total of 104 members, through the addition of members to represent new provinces and territories. The growth of membership in the Senate is summarized in Table 19.2.

As of January 3, 1987 representation in the Senate by political parties was as follows: Liberals, 66; Progressive Conservatives, 31; Independents, 5; Independent Liberal, 1; vacancies, 1.

A list of senators is published in Appendix C of this edition.

Chart 19.1

## The legislative process





### 19.3.2 The House of Commons

The number of members in the House of Commons is determined by the readjustment of federal electoral districts based on population counts of the decennial Censuses of Canada, conducted by Statistics Canada. The number of representatives elected at each general election since Confederation is given in Table 19.3.

**The federal franchise.** The present federal franchise laws are contained in the Canada Elections Act (RSC 1970, c.14, 1st Supp. as amended). Generally, the franchise is conferred upon all Canadian citizens who have reached age 18 and ordinarily live in the electoral district on the date fixed for the beginning of the enumeration at the election. Persons denied the right to vote are: the chief electoral officer and the assistant chief electoral officer; judges appointed by the Governor-in-Council; the returning officer for each electoral district; inmates of any penal institution; persons whose liberty of movement is restricted or who are deprived of the management of their property because of mental disease; and persons disqualified by law for corrupt or illegal practices.

The special voting rules set out in Schedule II to the Canada Elections Act prescribe voting procedures for members of the Canadian forces, for members of the federal public service posted abroad, and also for veterans receiving treatment or domiciliary care in certain institutions.

Electoral districts, votes polled and names of members of the House of Commons elected at the 33rd general election, September 4, 1984 are given in Table 19.4. Table 19.5 indicates voters on the lists and votes polled at federal general elections in 1972, 1974, 1979, 1980 and 1984.

## 19.4 The judiciary

Parliament is empowered by Section 101 of the Constitution Act, 1867, to provide for the constitution, maintenance and organization of a general court of appeal for Canada and for the establishment of any additional courts for the better administration of Canada's laws. Under this provision Parliament has established the Supreme Court of Canada, the Federal Court of Canada and certain miscellaneous courts. An account of the judiciary and legal system of Canada is presented in Chapter 20.

## 19.5 Federal government administration

For a description of federal financial operations and control, see Chapter 22, Government finance.

### 19.5.1 Government employment

Treasury Board (a statutory committee of the Queen's Privy Council) has overall responsibility for personnel management in the federal public service. It is responsible for development, application and evaluation of personnel policies, systems and methods to ensure that the people needed to carry out programs effectively are obtained at competitive wages and put to efficient use with consideration for the individual and collective rights of employees.

The Board is responsible for ensuring that fair and effective management, in the planning, acquisition, utilization and disposal of key administrative resources, prevails throughout the public service. It guides departmental managers in the efficient and effective management of key resources in support of departmental programs, promotes the efficient operations of departments and the effectiveness of federal programs, and ensures fair information practices in government.

Under provisions of the Financial Administration Act and the Public Service Staff Relations Act, Treasury Board is responsible for the development of policies, regulations, standards and programs in the areas of classification and pay, organization and establishments, conditions of employment, collective bargaining and staff relations, official languages, human resources training, development and utilization, pensions, insurance and other employee benefits and allowances, and other personnel management matters affecting the public service. The temporary assignment program is administered by Treasury Board. The Board is also responsible for organization development, human resources planning, the determination and evaluation of training needs and education programs, affirmative action program, equal pay for work of equal value initiatives, and standards governing health and safety. It evaluates the results from personnel policies, systems and programs and advises departments and agencies on the design and implementation of systems to improve personnel management.

Responsibility for classification has, with a few exceptions, been delegated to departments, subject to a monitoring process. Delegation of responsibility for the administration of pay has been delegated to departments. Benefit programs and allowance policies approved by the Board are designed to give departments maximum responsibility for administration.

Under the system of collective bargaining established by the Public Service Staff Relations Act, Treasury Board is the employer for employees in the public service, except for separate employers such as the National Research



Council and the National Film Board. The Board negotiates collective agreements with unions representing 76 bargaining units and advises departments on their administration.

The Board is also responsible for administration and consultation with unions through the National Joint Council on policies such as those pertaining to protective clothing and uniforms, government business travel, and relocation, which form part of collective agreements. It is responsible for those administrative policies which are general or cross-functional in nature such as contracting, risk management, incentive awards, and project management, including major Crown projects. Other policy areas dealt with include claims against the Crown, ex gratia payments, contracting-out science and technology, intellectual property, and common services.

The Board develops policy guidelines for public service pension, insurance and related programs, co-ordinates their administration and recommends periodic revisions. It negotiates reciprocal pension transfer agreements with other public and private employers.

The Board is also responsible for the formulation, implementation and review of all policies on information management. This covers the management of information technology, including all aspects of information systems, electronic data processing, telecommunications and office support systems. It is also responsible for information management practices, including those relating to Access to Information and Privacy, information collection, security of information and other assets, records management, communications, and the Federal Identity Program.

**Public Service Commission.** The Public Service Commission of Canada is an independent agency accountable to Parliament for the administration of the Public Service Employment Act. Under this act, the Commission must ensure that the merit principle is upheld in all public service appointments. It must also guarantee that high standards are maintained in the service, consistent with adequate representation of the two official language groups, a bilingual capability to the extent prescribed by the government, equal employment and career development opportunities irrespective of race, national or ethnic origin, colour, religion, age, sex, marital status, family status, disability or conviction for an offence for which a pardon has been granted.

The Public Service Employment Act gives the Commission the exclusive right and authority to make appointments to and from within the public service. It also authorizes the Commission to delegate to deputy heads any of its powers, except

those relating to appeals and inquiries. The Commission has delegated powers to make appointments in operational and administrative support categories; however, departments are required to use Canada employment centres as their recruitment agency for appointments from outside the public service. Appointing authority has also been delegated in the administrative and foreign service, technical, and scientific and professional categories under conditions which preserve the Commission's authority as central recruiting agency for the public service of Canada with a few exceptions, that is, those cases where a department is virtually the sole employer of a particular occupational specialty. The Commission ensures that appointments made under delegated authority comply with the law and Commission policies.

In recognition of affinity of work and for administrative reasons, public service positions have been aggregated in six broad occupational categories: management, scientific and professional, technical, administrative and foreign service, administrative support, and operational. The classification system divides these categories into a host of occupational groups, in which positions are similar in skills required and the work performed.

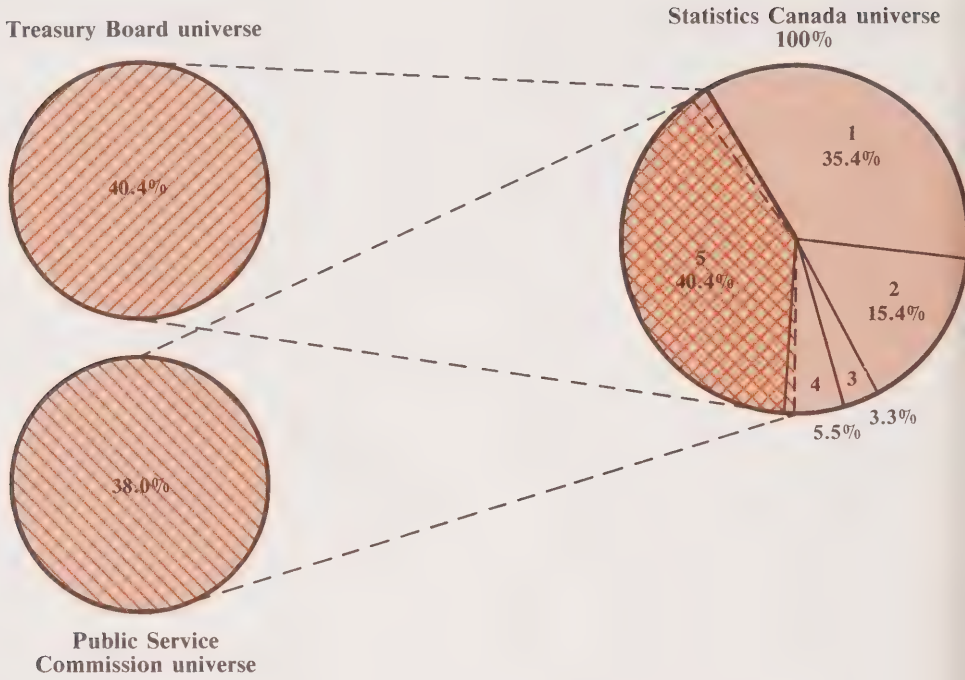
Appointments to public service positions are normally made from within the service, except when it may be in the best interests of the service to do otherwise. In an internal selection process, prospective candidates may be identified through an employee inventory, or may respond to a notice posted to advertise the position. The successful candidate is chosen by a selection board which examines all the candidates. Unsuccessful candidates may appeal the results of the competition. The Public Service Commission maintains an employee inventory for positions at senior management and senior executive levels.

Under other circumstances it may be decided to transfer employees between positions. In exceptional instances an employee may be promoted without competition; other public servants have the right to appeal such a staffing action. A right to appeal also exists when a decision has been taken to recommend an employee's demotion or release because of incompetence or incapacity.

Competitions for positions in the public service are announced through the news media and posters displayed on public notice boards of Canada Employment Centres, Public Service Commission of Canada offices, major post offices and other selected locations.

Chart 19.2

**Federal government employment, December 1986**



- 1 - Government enterprises.
- 2 - DND military personnel.
- 3 - RCMP uniformed personnel.
- 4 - Employees of other corporations and agencies for which Treasury Board does not represent the employer.
- 5 - Federal public service workforce for which Treasury Board represents the employer (departments and agencies listed in Schedule I, Part 1, of the Public Service Staff Relations Act).

The Commission establishes boards to decide on appeals against appointments made within the public service and against release or demotion for incompetence or incapacity and to make recommendations in the revocation of appointments improperly made under delegated authority. It is also responsible for investigating allegations of irregularities in staffing and matters of personal harassment in the workplace. It investigates allegations of political activity by public servants and approves employees' requests for leave to participate in political activity.

In order that departments may serve the public in accordance with the Official Languages Act, the Commission ensures that employees appointed are qualified to meet the linguistic requirements of positions and, in situations where they do not qualify, that incumbents or winners of competitions for bilingual positions receive training in their second official language. Part-time language training is also available to other public servants.

The Commission also operates staff development and training programs and assists public service departments and agencies in implementing training and development plans.

**Native peoples.** The federal Indian affairs and northern development department is responsible for meeting statutory obligations to Indians registered under the Indian Act and for programs approved specifically for them.

Canada's 22,300 Inuit, most of whom live in Northwest Territories, Quebec and Labrador, are the concern of Indian and Northern Affairs Canada, the government of Northwest Territories and provincial governments.

See Appendix E, the Constitution Act, 1982, for additional information.

### 9.5.2 Departments, boards, commissions and corporations

In Canada the work of government is conducted by federal departments, special boards, commissions and corporations owned or controlled by the Government of Canada, as well as several corporations in which the government holds a minority interest.

Crown corporations have evolved as a popular choice with both federal and provincial governments for delivery of public services which require a combination of business enterprise and public accountability.

At the federal level, amendments to the Financial Administration Act (FAA), which were promulgated in on September 1, 1984, established, through Part XII of that Act, a comprehensive control and accountability framework for Crown

corporations. Part XII of the FAA makes Crown corporations accountable ultimately to Parliament, through the appropriate Minister, and exercises control primarily through the parent companies. In addition to Part XII of the FAA, Crown corporations are also subject to the provisions of any enabling legislation or special acts.

There are eight Crown corporations which are exempted from the control and accountability framework of Part XII because of the need for those corporations to operate with greater autonomy, for reasons which are unique to each corporation. (These include the Bank of Canada, Canadian Wheat Board, Canadian Institute for International Peace and Security, International Development Research Centre, and cultural corporations such as the Canadian Broadcasting Corporation.)

Other corporate interests of Canada include joint and mixed enterprises. These are companies in which the federal government owns share capital in partnership with other governments and/or organizations. (These include Canada Development Corporation, Telesat Canada and Canarctic Shipping Company Limited.) The government's ability to direct and influence the activities of those corporations in which it has less than 100% ownership is limited because the rights of other shareholders must be respected. Where such investments are held by Crown corporations, however, the FAA requires those Crown corporations be held accountable for their investments.

In addition, there are other entities — entities without share capital for which the Government of Canada has a right to appoint members to the board of directors. (These include harbour commissions, Hockey Canada Inc. and the Canada Grains Council.) The government's ability to direct and influence the activities of these entities is dictated by whatever agreements governed their establishment.

Appendix A of this edition provides descriptions of departments, Crown corporations, boards, commissions, offices and agencies of the federal government.

### 19.5.3 Applied titles

The use of applied titles in place of the legal titles of government organizations, for example, Labour Canada, is prescribed by the Federal Identity Program (FIP) which requires the use of such titles in conjunction with symbols to ensure a consistent visual identity throughout the Government of Canada. The titles are used on all applications of the program, for example, signs, vehicles, stationery and advertising but are not to



be used on legal applications, such as contracts or documents used in court proceedings.

Treasury Board has central responsibility for the program and the policy, which is issued as part of the administrative policy manual. Each organization is responsible for implementing the policy.

## 19.6 Provincial and territorial governments

The former BNA Act provided for the federal union of three British North American provinces — Canada (Ontario and Quebec), Nova Scotia and New Brunswick — into one dominion under the name Canada. The act made provision for possible future entry into Confederation of the colonies or provinces of Newfoundland, Prince Edward Island and British Columbia, and of Rupert's Land and the North-Western Territory, a vast expanse then held by the Hudson's Bay Company. In 1870, the company surrendered its territories to the British Crown which transferred them to Canada. In exchange it received a cash payment from the Canadian government of \$300,000, one-twentieth of the lands in the southern part, "the fertile belt", of the territory, and designated blocks of land around its trading posts. From this new territory was carved Manitoba in 1870, much smaller at its inception than now, and later, in 1905, Saskatchewan and Alberta. British Columbia entered Confederation in 1871 on condition that a railway linking it with Eastern Canada be commenced within two years. In 1873 Prince Edward Island entered the union and in 1949 Newfoundland joined.

### 19.6.1 Provincial governments

In each of the provinces, the Queen is represented by a lieutenant-governor appointed by the Governor General-in-Council. The lieutenant-governor acts on the advice and with the assistance of his ministry or an executive council which is responsible to the legislature and resigns office under circumstances similar to those described concerning the federal government.

The legislature of each province is unicameral, consisting of the lieutenant-governor and a legislative assembly. The assembly is elected by the people for a statutory term of five years but may be dissolved within that period by the lieutenant-governor on the advice of the premier of the province.

Sections 92, 93 and 95 of the Constitution Act, 1867 (Br. Stat. 1867, c.3 and amendments) assign legislative authority in certain areas to the provincial governments.

Details regarding qualifications and disqualifications of the franchise are contained in the elections act of each province. In general, every person at a specified age who is a Canadian citizen or (in certain provinces) other British subject, who complies with certain residence requirements in the province and the electoral district of polling and who falls under no statutory disqualifications, is entitled to vote. Persons can vote in Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan and Alberta at age 18, and in British Columbia, Northwest Territories and Yukon at age 19.

Executive councils of the provinces and the commissioner and legislative assembly of Yukon and Northwest Territories are given in Appendix C.

**Newfoundland.** The government of Newfoundland has a lieutenant-governor, an executive council and a house of assembly made up of 52 members. On September 5, 1986, the Honourable James A. McGrath, PC became the lieutenant-governor. The 40th legislature in the history of Newfoundland and the twelfth since Confederation, elected April 2, 1985, comprised 36 Progressive Conservatives, 15 Liberals and one New Democrat; as of November 1986, party standings had not changed.

**Prince Edward Island.** The government of Prince Edward Island consists of a lieutenant-governor, an executive council and a legislative assembly. The Honourable Lloyd G. MacPhail was sworn in as lieutenant-governor on August 1, 1985. The legislative assembly has 32 members from 16 electoral districts. Each district elects two representatives. The 57th general assembly elected April 21, 1986 consisted of 21 Liberals and 11 Progressive Conservatives; party standings had not changed as at November 30, 1986.

**Nova Scotia.** The government of Nova Scotia consists of a lieutenant-governor, acting with the advice of the executive council of the province and the legislature, known as the house of assembly, which has 52 members. The Honourable Alan R. Abraham, CD, was lieutenant-governor as of January 31, 1984. A general election took place on November 6, 1984, when 42 Progressive Conservatives, six Liberals, three New Democrats and one Independent were elected.

**New Brunswick.** The government of New Brunswick has a lieutenant-governor, an executive council and a legislative assembly. The Honourable George F.G. Stanley was sworn in on January 27, 1982, as lieutenant-governor. The



legislature in 1986 had 58 members, including 37 Progressive Conservatives, 20 Liberals and one New Democrat.

**Quebec.** In Quebec, legislative and executive powers are vested in the National Assembly and an executive council. As the representative of the Crown, the lieutenant-governor plays a role in the functioning of both branches. The Honourable Gilles Lamontagne assumed that office on March 28, 1984. The election for the 33rd legislature was held December 2, 1985. Party standings were: 99 Liberals and 23 Parti Québécois.

**Ontario.** The government of Ontario consists of a lieutenant-governor, an executive council and a legislative assembly. The Honourable Lincoln M. Alexander took office as lieutenant-governor on September 20, 1985. A legislative assembly composed of 125 members was elected May 2, 1985. As of November 1, 1986 there were 51 Progressive Conservatives, 50 Liberals and 24 New Democrats.

In addition to the regular ministries are the following provincial agencies: the Niagara Parks Commission, the Ontario Municipal Board, Ontario Hydro, the St. Lawrence Parks Commission, the Ontario Northland Transportation Commission, the Liquor Control Board and the Liquor Licence Board.

**Manitoba.** In addition to a lieutenant-governor, Manitoba has an executive council composed of 21 members and a legislative assembly of 57 members. The Honourable George Johnson was appointed lieutenant-governor on November 14, 1986. In the general election of March 18, 1986, 30 New Democrats, 26 Progressive Conservatives and one Liberal were elected to the 33rd legislature.

**Saskatchewan.** The government of Saskatchewan consists of a lieutenant-governor, an executive council and a legislative assembly. The Honourable Frederick W. Johnson, QC, is the lieutenant-governor. The statutory number of members of the legislative assembly is 64. As of November 12, 1986, Saskatchewan had 38 Progressive Conservatives, 25 New Democrats and one Liberal in the legislative assembly.

**Alberta.** In addition to the lieutenant-governor since January 22, 1985 the Honourable Helen Inley (née Tunley) the government of Alberta is composed of an executive council and a legislative assembly of 83 members. On May 8, 1986, 61 Progressive Conservatives, 16 members of the New Democratic Party, four Liberals and two members of the Representative Party of Alberta were elected to form the 21st legislature.

**British Columbia.** The government of British Columbia consists of a lieutenant-governor, an executive council and a legislative assembly of 69 members. On July 13, 1983 the Honourable Robert Gordon Rogers took office as lieutenant-governor. As at October 22, 1986 the assembly consisted of 47 Social Credit members and 22 New Democrats.

### 19.6.2 Territorial governments

**Yukon.** The constitution for the government of Yukon is based on two federal statutes: the Yukon Act (RSC 1970, c.Y-2) and the Government Organization Act (SC 1966, c.25). The Yukon Act provides for a commissioner as head of government and for a legislative body called the Yukon legislative assembly. Under the Government Organization Act, the Minister of Indian and Northern Affairs Canada is responsible (with the Governor-in-Council) for directing the commissioner in the administration of Yukon.

In 1979 the Minister of Indian and Northern Affairs Canada brought in changes which altered the executive level of the Yukon government. It now consists of five elected members of the Yukon legislative assembly who are appointed to an executive council or cabinet by the commissioner, upon the recommendation of the government leader. The commissioner is still the senior representative of Indian and Northern Affairs Canada in Yukon and performs duties similar to those of a lieutenant-governor in relation to the legislature. The executive council members are assigned portfolio responsibilities by the government leader.

The Yukon Act delineates the jurisdiction of the legislative assembly. It is like those of the provincial assemblies and has jurisdictional control of all matters of a local nature except that the federal government, through Indian and Northern Affairs Canada, retains control of Yukon's renewable and non-renewable natural resources. Jurisdiction for the territory's wildlife rests with the Yukon government. The legislature is called into session by the commissioner on the advice of the majority party leader.

Legislative authority for Yukon is vested in the Commissioner-in-Council. All bills must be approved by council and assented to by the commissioner before becoming law. As in other jurisdictions, the Governor-in-Council may disallow any ordinance within one year. Ordinances are printed on a sessional basis and consolidated annually.

Amendments to the Yukon Act passed by Parliament allowed for an expansion of council membership from 12 to 16 in 1978 and provided for future expansion to 20.

Yukon legislative assembly members are elected for four-year terms. The assembly usually meets twice a year in Whitehorse.

**Northwest Territories.** The Northwest Territories Act (RSC 1970, c.N-22) provides for an executive, legislative and judicial structure. The commissioner is the chief executive officer, appointed by the federal government and responsible for the administration of Northwest Territories under the direction of the Minister of Indian and Northern Affairs Canada. The commissioner spends funds voted by the legislative assembly and all new revenue measures are subject to assembly approval. Normally the commissioner obtains federal approval of proposed legislation and budgetary measures before submitting them to council.

The legislative assembly of the Northwest Territories has legislative powers similar to those of a provincial legislature. The Northwest Territories Act gives the assembly authority to legislate in most areas of government activity except for natural resources other than game, forestry and fire suppression; these are reserved to the federal government. Legislation must receive three readings and have the assent of the commissioner. The federal government may disallow any act within one year.

The legislative assembly consists of 24 members elected for four years. It meets twice a year, usually for six weeks at a winter session and for a shorter fall session. A third short spring or summer session also may be held. The assembly does not, at present, operate on a party system. Its members attempt to make decisions and provide advice to the executive council by consensus. The legislative assembly selects its speaker from among its members. A majority of the members of the legislative assembly are of aboriginal descent.

The executive council is the senior decision-making body of the government of the Northwest Territories. The commissioner continues to be the formal head of government. The legislative assembly nominates up to eight of its members to the executive council and chooses one as government leader and chairman of the executive council. Each elected executive council member is responsible for one or more departments of the Territorial government. Executive members are collectively responsible for decisions on policy and programs, for relations with federal and provincial governments and for the general conduct of the government in the Northwest Territories.

The federal Justice Minister is the Attorney General of Northwest Territories under the Criminal Code of Canada, with responsibility for criminal but not for civil matters or the

constitution or organization of the courts. Law enforcement is provided by the Royal Canadian Mounted Police.

## 19.7 Local government

Local government in Canada comprises all government entities created by the provinces and territories to provide services that can be more effectively discharged through local control. Broadly speaking, local government services are identified in terms of their main functions: protection, transportation, environmental health, environmental development, health and welfare services, recreation, community services and education. Local government may also operate such facilities as public transit and the supply of electricity and gas. Education is normally administered separately from the other local functions.

Under the Constitution Act, 1867 local government was made a responsibility of the provincial legislatures, a responsibility extended to the territories when their governments were constituted in their present forms. The unit of local government, apart from the school board, is usually the municipality which is incorporated as a city, town, village, township or other designation. The powers and responsibilities of municipalities are delegated to them by statutes passed by their respective provincial or territorial legislatures.

An increasing number of special agencies or joint boards and commissions have been created to provide certain services for groups of municipalities. Local government revenue has been supplemented by provincial grants, either unconditional or for specific purposes. Certain functions traditionally assigned to local government have been assumed in whole or in part by the provinces. Besides encouraging the amalgamation of small units, the provinces have established new levels of local government to provide services which can be better discharged at a regional level. Second-tier local governments now cover the whole of British Columbia and much of Ontario. In Quebec three regional governments have been established.

The major revenue source available to local government is the taxation of real property, supplemented by taxation of personal property, businesses and amusements. Revenue is also derived from licences, permits, rents, concessions, franchises, fines and surplus funds from municipal enterprises.

**Newfoundland** has 312 incorporated municipalities comprised of two cities, one metropolitan area, 169 towns and 140 communities. In

addition, there are 113 quasi-municipal areas known as local service districts. Cities, towns and communities have elected councils. The metropolitan area has an appointed board. The local service districts have elected committees.

St. John's, the capital of Newfoundland, was one of the earliest sites of New World settlement. The St. John's metropolitan area covers the area adjoining and surrounding the city of St. John's.

**Prince Edward Island** has one city, eight towns and 30 villages, all of which are incorporated. Thirty-nine community improvement committees provide a measure of local services to the unincorporated areas of the province. Charlottetown, the capital, was first incorporated in 1855. Five regional administrative units provide elementary and secondary education for the province, with the individual boards elected by residents of the units.

**Nova Scotia** is divided into 18 counties; 12 constitute separate municipalities and the remaining six are each divided into two municipalities, making a total of 24 rural municipalities. Within these municipalities are 25 incorporated villages that provide limited services. Three cities and 39 towns, although located within counties or districts, are entirely independent of them except as to joint expenditures. There is no part of the province that is not municipally organized.

Halifax, capital of Nova Scotia, and part of the largest metropolitan area in the Atlantic provinces, is governed by an elected council consisting of a mayor and 12 aldermen, one for each of 12 wards.

**New Brunswick** municipal organization includes six cities, 26 towns and 85 villages. The remainder of the province is not municipally organized and is administered by the provincial government. There are 282 unincorporated local service districts which are not municipal organizations but were established to provide services of a municipal nature.

Fredericton is the capital of New Brunswick and the third largest city. Saint John is the largest city and Moncton is second.

**Quebec.** The more densely settled areas comprising about one-third of the province are municipally organized; the remainder is governed by the province which administers the James Bay and Northern Quebec Agreement.

Since 1981, Quebec has been reorganizing cities, towns and municipalities into regional county municipalities. The primary responsibility of a regional county municipality is to develop a planning scheme, that is, to define planning objectives and determine land use for its entire

territory. It may also be responsible for real estate assessment or for operating a waste management system, to name two examples. By October 1985, approximately 95 regional county municipalities had been created.

In 1985, there were 257 cities and towns, 1,298 municipalities and 56 native villages. Major municipal consolidations began in 1965 with the fusion of the 14 municipalities on Île Jésus into the new city of Laval. In 1970, the Montreal and Quebec Urban Communities and the Outaouais Regional Community were established with integration of municipal services to be staged gradually.

Quebec is the capital city and Montreal is the incorporated city with the largest population.

**Ontario.** In Ontario, slightly more than 10% of the area includes 95% of the total population and is municipally organized; the remainder is under direct provincial administration. The settled section is divided into one metropolitan municipality, 10 regional municipalities, 27 counties and 10 regional districts. There are 49 cities including one borough, 145 towns, 119 villages, 478 townships and 8 improvement districts. The Municipality of Metropolitan Toronto, in existence since January 1954, encompasses five cities and one borough and is responsible for assessments, police, water supply, sewerage, metropolitan road systems and planning. The regional municipalities of Durham, Haldimand-Norfolk, Halton, Hamilton-Wentworth, Niagara, Ottawa-Carleton, Peel, Sudbury, Waterloo and York have replaced county administrations and assumed certain responsibilities over all municipalities within their boundaries. The District Municipality of Muskoka has responsibilities, similar to those of the regional municipalities, over the reorganized municipalities of the former district of Muskoka. This form of regional government is contemplated in other areas. Each county, although an incorporated municipality, comprises the towns (with the exception of four separated towns), villages and townships within it. Some municipalities are located outside the counties in areas called districts. These districts in Western and Northern Ontario are not municipal entities.

Toronto, the capital of Ontario, had been the capital of Upper Canada before Confederation. North York is the second largest incorporated city in Ontario, followed in population size by Mississauga, Scarborough, Hamilton and Ottawa, the national capital.

**Manitoba** has five cities, 35 towns, 40 villages and 105 rural municipalities. There are also 17 local



government districts which perform the same general functions as municipalities. They are administered by administrators who act, in most districts, on the advice of elected councils, but are subject to the final authority of the minister of municipal affairs.

In Manitoba, the capital city of Winnipeg and 11 surrounding municipalities, after 12 years under the partial central authority of the Metropolitan Corporation of Greater Winnipeg, were amalgamated into a single city in January 1972.

**Saskatchewan** has 12 cities, 143 towns, 323 villages, 32 resort villages, 2 northern towns, 10 northern villages, 14 northern hamlets and 299 rural municipalities. Administration of the 10 northern settlements is provided by the province with the advice of local advisory committees.

Although Regina is the capital of Saskatchewan, Saskatoon is slightly larger in population.

**Alberta** has 16 cities, 108 towns, 172 villages, 20 municipal districts and 30 counties. The counties administer schools in addition to municipal services. There are 19 improvement districts and three special areas administered by the Special Areas Board.

Edmonton, the capital, was incorporated in 1904. Calgary was founded in 1875 by the mounted police and incorporated as a city in 1893.

**British Columbia.** In 1967, the government of British Columbia instituted regional government.

By January 1972, 28 regional districts had been established. These regional districts are assuming responsibility for certain services from municipalities within their boundaries as well as providing services to previously unorganized areas. There are 35 cities, 13 towns, 48 villages and 46 districts. Districts are mostly rural although some adjacent to the principal cities of Vancouver and Victoria are largely urban in character. Unincorporated local districts have been set up to provide certain municipal services.

Victoria, the capital, on the southeastern tip of Vancouver Island, was incorporated in 1862. The largest city, Vancouver, was incorporated in 1886.

**Yukon.** There are two cities, one town, four villages, one hamlet and eight unorganized communities in Yukon. The cities, towns and villages have full municipal status and are responsible for their own taxation and administration. The Yukon government provides municipal services to the unorganized communities. The seat of government was moved from Dawson City to Whitehorse in 1953.

**Northwest Territories** includes one city, five towns, two villages, 30 hamlets and 14 settlements. The hamlets, although incorporated are developmental forms of local government. Yellowknife on the north arm of Great Slave Lake was named the capital in 1967.

## Sources

19.1 - 19.4 Machinery of Government, Privy Council Office; Journals Branch, House of Commons; Law Branch, The Senate; Elections Canada.

19.5.1 Communications Division, Treasury Board; Public Affairs Directorate, Public Service Commission; Communications Division, Department of Indian Affairs and Northern Development.

19.5.2 Machinery of Government, Privy Council Office.

19.5.3 Communications Division, Treasury Board.

19.6 Provincial and territorial governments.

19.7 Public Institutions Division, Statistics Canada; provincial and territorial governments.



# TABLES

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 -- too small to be expressed

e estimate  
 p preliminary  
 r revised  
 certain tables may not add due to rounding

## 19.1 Duration and sessions of Parliaments, 1965-84

Order of Parliament	Session	Date of opening	Date of prorogation	Days of session	Sitting days of House of Commons	Date of election, writs returnable, dissolution, and length of Parliament <sup>1,2</sup>
27th Parliament	1st	Jan. 18, 1966	May 8, 1967	476 <sup>6</sup>	250	Nov. 8, 1965 <sup>3</sup>
	2nd	May 8, 1967	Apr. 23, 1968	352 <sup>7</sup>	155	Dec. 9, 1965 <sup>4</sup> Apr. 23, 1968 <sup>5</sup> 867 days
28th Parliament	1st	Sept. 12, 1968	Oct. 22, 1969	406 <sup>8</sup>	197	June 25, 1968 <sup>3</sup>
	2nd	Oct. 23, 1969	Oct. 7, 1970	350 <sup>9</sup>	155	July 25, 1968 <sup>4</sup>
	3rd	Oct. 8, 1970	Feb. 16, 1972	497 <sup>10</sup>	244	Sept. 1, 1972 <sup>5</sup>
	4th	Feb. 17, 1972	Sept. 1, 1972	198 <sup>11</sup>	91	1,500 days
29th Parliament	1st	Jan. 4, 1973	Feb. 26, 1974	419 <sup>12</sup>	206	Oct. 30, 1972 <sup>3</sup>
	2nd	Feb. 27, 1974	May 9, 1974	72	50	Nov. 20, 1972 <sup>4</sup> May 9, 1974 <sup>5</sup> 536 days
30th Parliament	1st	Sept. 30, 1974	Oct. 12, 1976	744 <sup>13</sup>	343	July 8, 1974 <sup>3</sup>
	2nd	Oct. 12, 1976	Oct. 17, 1977	371 <sup>14</sup>	175	July 31, 1974 <sup>4</sup>
	3rd	Oct. 18, 1977	Oct. 10, 1978	358 <sup>15</sup>	151	Mar. 26, 1979 <sup>5</sup>
	4th	Oct. 11, 1978	Mar. 26, 1979	167 <sup>16</sup>	98	1,700 days
31st Parliament	1st	Oct. 9, 1979	Dec. 14, 1979	67	49	May 22, 1979 <sup>3</sup> June 11, 1979 <sup>4</sup> Dec. 14, 1979 <sup>5</sup> 187 days
32nd Parliament	1st	Apr. 14, 1980	Nov. 30, 1983	591 <sup>17</sup>	304	Feb. 18, 1980 <sup>3</sup>
	2nd	Dec. 7, 1983	June 29, 1984	81	116	Mar. 10, 1980 <sup>4</sup> July 9, 1984 <sup>5</sup> 1,483 days
33rd Parliament	1st	Nov. 5, 1984	Aug. 28, 1986	662 <sup>18</sup>	308	Sept. 4, 1984 <sup>3</sup>
	2nd	Sept. 30, 1986 <sup>19</sup>	...	...	...	Sept. 24, 1984 <sup>4</sup>

- <sup>1</sup> The ordinary legal limit of duration for each Parliament is five years.
- <sup>2</sup> Duration of Parliament in days. The life of a Parliament is counted from the date of return of election writs to the date of dissolution, both days inclusive (BNA Act, Sect. 50).
- <sup>3</sup> Date of general election.
- <sup>4</sup> Writs returnable.
- <sup>5</sup> Dissolution of Parliament.
- <sup>6</sup> Includes Easter adjournment from Apr. 6, 1966 to Apr. 19, 1966; two summer adjournments from July 14, 1966 to Aug. 29, 1966 and Sept. 9, 1966 to Oct. 5, 1966; Christmas adjournment from Dec. 21, 1966 to Jan. 9, 1967; and Easter adjournment from Mar. 22, 1967 to Apr. 3, 1967.
- <sup>7</sup> Includes summer adjournment from July 7, 1967 to Sept. 25, 1967; Christmas adjournment from Dec. 21, 1967 to Jan. 22, 1968; and Easter (Liberal Convention) adjournment from Mar. 28, 1968 to Apr. 23, 1968.
- <sup>8</sup> Includes Christmas adjournment from Dec. 20, 1968 to Jan. 14, 1969; Easter adjournment from Apr. 2, 1969 to Apr. 14, 1969; and summer adjournment from July 25, 1969 to Oct. 22, 1969.
- <sup>9</sup> Includes Christmas adjournment from Dec. 19, 1969 to Jan. 12, 1970; Easter adjournment from Mar. 25, 1970 to Apr. 6, 1970; and summer adjournment from June 26, 1970 to Oct. 5, 1970.
- <sup>10</sup> Includes Christmas adjournment from Dec. 18, 1970 to Jan. 11, 1971; Easter adjournment from Apr. 7, 1971 to Apr. 19, 1971; summer adjournment from June 30, 1971 to Sept. 7, 1971; and Christmas adjournments from Dec. 23, 1971 to Dec. 28, 1971 and Dec. 31, 1971 to Jan. 12, 1972.
- <sup>11</sup> Includes Easter adjournment from Mar. 29, 1972 to Apr. 13, 1972; and summer adjournment from July 7, 1972 to Aug. 31, 1972.
- <sup>12</sup> Includes Easter adjournment from Apr. 19, 1973 to May 6, 1973; summer adjournments from July 27, 1973 to Aug. 30, 1973 and Sept. 21, 1973 to Oct. 15, 1973; and Christmas adjournments from Dec. 22, 1973 to Jan. 2, 1974 and Jan. 14, 1974 to Feb. 26, 1974.
- <sup>13</sup> Includes Christmas adjournment from Dec. 20, 1974 to Jan. 22, 1975; Easter adjournment from Mar. 27, 1975 to Apr. 7, 1975; summer adjournment from July 31, 1975 to Oct. 13, 1975; Christmas adjournment from Dec. 20, 1975 to Jan. 26, 1976; Easter adjournment from Apr. 14, 1976 to Apr. 26, 1976; and summer adjournment from July 16, 1976 to Oct. 12, 1976.
- <sup>14</sup> Includes Christmas adjournment from Dec. 22, 1976 to Jan. 24, 1977; Easter adjournment from Apr. 6, 1977 to Apr. 18, 1977; and summer adjournments from July 25, 1977 to Aug. 4, 1977, Aug. 5, 1977 to Aug. 9, 1977 and Aug. 9, 1977 to Oct. 17, 1977.
- <sup>15</sup> Includes Christmas adjournment from Dec. 20, 1977 to Jan. 23, 1978; Easter adjournment from Mar. 22, 1978 to Apr. 3, 1978; and summer adjournment from June 30, 1978 to Oct. 10, 1978.
- <sup>16</sup> Includes Christmas adjournment from Dec. 22, 1978 to Jan. 23, 1979.
- <sup>17</sup> Includes summer adjournment from July 22, 1980 to Oct. 6, 1980; Christmas adjournment from Dec. 19, 1980 to Jan. 12, 1981; Easter adjournments from Apr. 15, 1981 to Apr. 21, 1981 and Apr. 23, 1981 to May 21, 1981; summer adjournment from July 17, 1981 to Oct. 14, 1981; and Christmas adjournment from Dec. 18, 1981 to Jan. 25, 1982.
- <sup>18</sup> Includes Christmas adjournment from Dec. 22, 1984 to Jan. 13, 1985; Easter adjournment from Apr. 4, 1985 to Apr. 14, 1985; summer adjournment from June 29, 1985 to Sept. 8, 1985; Christmas adjournment from Dec. 21, 1985 to Jan. 12, 1986; Easter adjournment from Mar. 27, 1986 to Apr. 6, 1986; and summer adjournment from June 28 to prorogation on Aug. 28, 1986.
- <sup>19</sup> Sept. 30, 1986, Election of the Speaker; Oct. 1, 1986, Speech from the Throne.

## 19.2 Representation in the Senate since Confederation, 1867

Province or territory	1867	1870	1871	1873	1882	1887	1892	1903	1905	1915-1948	1949-1974	1975-1984
Ontario	24	24	24	24	24	24	24	24	24	24	24	24
Quebec	24	24	24	24	24	24	24	24	24	24	24	24
Atlantic provinces	24	24	24	24	24	24	24	24	24	24	30	30
Nova Scotia	12	12	12	10	10	10	10	10	10	10	10	10
New Brunswick	12	12	12	10	10	10	10	10	10	10	10	10
Prince Edward Island	...	...	...	4	4	4	4	4	4	4	4	4
Newfoundland	...	...	...	...	...	...	...	...	...	...	6	6
Western provinces	...	2	5	5	6	8	9	11	15	24	24	24
Manitoba	...	2	2	2	3	3	4	4	4	6	6	6
British Columbia	...	...	3	3	3	3	3	3	3	6	6	6
Saskatchewan	...	...	...	...	...	...	...	...	...	6	6	6
Alberta	...	...	...	...	...	2	2	4	4	6	6	6
Territories	...	...	...	...	...	...	...	...	...	...	...	2
Yukon	...	...	...	...	...	...	...	...	...	...	...	1
Northwest Territories	...	...	...	...	...	...	...	...	...	...	...	1
Total	72	74	77	77	78	80	81	83	87	96	102	104

## 19.3 Representation in the House of Commons, as at federal general elections 1867-1984

Province or territory	1867	1872	1874 1878	1882	1887 1891	1896 1900	1904	1908 1911	1917 1921	1925 1926 1930	1935 1940 1945	1949	1953 1957 1958 1962 1963 1965	1968 1972 1974	1979 1980 1984
Ontario	82	88	88	92	92	92	86	86	82	82	82	83	85	88	95
Quebec	65	65	65	65	65	65	65	65	65	65	65	73	75	74	75
Nova Scotia	19	21	21	21	21	20	18	18	16	14	12	13	12	11	11
New Brunswick	15	16	16	16	16	14	13	13	11	11	10	10	10	10	10
Manitoba	...	4	4	5	5	7	10	10	15	17	17	16	14	13	14
British Columbia	...	6	6	6	6	6	7	7	13	14	16	18	22	23	28
Prince Edward Island	...	...	6	6	6	5	4	4	4	4	4	4	4	4	4
Saskatchewan	...	...	...	...	...	4	10	10	16	21	21	20	17	13	14
Alberta	...	...	...	...	4	4	10	7	12	16	17	17	17	19	21
Yukon	...	...	...	...	...	...	1	1	1	1	1	1	1	1	1
Mackenzie River	...	...	...	...	...	...	1	1	1	1	1	1	1	1	2
NWT <sup>1</sup>	...	...	...	...	...	...	...	...	...	...	...	7	7	7	7
Newfoundland	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	181	200	206	211	215	213	214	221	235	245	245	262	265	264	282

<sup>1</sup> Electoral district of Northwest Territories in 1963, 1965, 1968, 1972 and 1974. Northwest Territories has been divided into two electoral districts since 1976.

## 19.4 Electoral districts, votes polled and names of members of the House of Commons as elected at the thirty-third general election, Sept. 4, 1984

Province and electoral district	Population, Census 1981	Total votes polled (incl. rejections)	Votes polled by member	Name of member	Party affiliation <sup>1</sup>
<b>NEWFOUNDLAND</b> (7 members)					
Bonavista-Trinity-Conception	76,672	34,795	19,015	Morrissey Johnson	PC
Burin-St. George's	64,017	28,094	13,184	Joe Price	PC
Gander-Twillingate	78,160	30,460	16,100	George Baker	Lib.
Grand Falls-White Bay-Labrador	78,877	28,831	12,938	William Rompkey	Lib.
Humber-Port au Port-St. Barbe	80,164	36,221	17,409	Brian Tobin	Lib.
St. John's East	94,029	39,604	30,866	James A. McGrath	PC
St. John's West	95,762	44,486	33,696	John C. Crosbie	PC

# 19.4 Electoral districts, votes polled and names of members of the House of Commons as elected at the thirty-third general election, Sept. 4, 1984 (continued)

Province and electoral district	Population, Census 1981	Total votes polled (incl. rejections)	Votes polled by member	Name of member	Party affiliation <sup>1</sup>
<b>PRINCE EDWARD ISLAND</b> (4 members)					
Cardigan	31,736	19,912	10,566	Pat Binns	PC
Egmont	30,610	17,711	8,777	George Henderson	Lib.
Hillsborough	27,532	17,328	9,158	Tom McMillan	PC
Malpeque	32,628	18,850	10,577	Mel Gass	PC
<b>NOVA SCOTIA</b> (11 members)					
Annapolis Valley-Hants	82,860	44,003	23,580	J. Patrick Nowlan	PC
Cape Breton-East Richmond	64,503	36,517	20,270	Dave Dingwall	Lib.
Cape Breton Highlands-Canso	65,883	38,949	19,371	Lawrence I. O'Neil	PC
Cape Breton-The Sydneys	65,970	36,568	16,051	Russell MacLellan	Lib.
Central Nova	64,441	35,303	21,462	Elmer M. MacKay	PC
Cumberland-Colchester	78,455	42,374	24,180	Robert C. Coates	PC
Dartmouth-Halifax East	100,016	50,405	27,549	Mike Forrestall	PC
Halifax	72,143	42,225	18,779	Stewart McInnes	PC
Halifax West	106,470	56,027	30,287	Howard E. Crosby	PC
South Shore	76,200	39,578	22,347	Lloyd R. Crouse	PC
South West Nova	70,501	40,936	20,604	Gerald Comeau	PC
<b>NEW BRUNSWICK</b> (10 members)					
Carleton-Charlotte	65,764	32,399	19,864	Fred McCain	PC
Fundy-Royal	86,939	46,239	26,021	Robert A. Corbett	PC
Gloucester	71,999	42,929	23,524	Roger Clinch	PC
Madawaska-Victoria	57,247	31,880	16,411	Bernard Valcourt	PC
Moncton	90,649	52,619	29,936	Dennis H. Cochrane	PC
Northumberland-Miramichi	56,362	31,965	17,134	W.R. Bud Jardine	PC
Restigouche	54,750	31,156	14,089	Al Girard	PC
Saint John	67,986	32,092	16,604	G.S. Gerald	PC
Westmorland-Kent	60,469	35,588	14,709	Merrithew Fernand	PC
York-Sunbury	84,238	42,983	25,190	Robichaud J. Robert Howie	Lib. PC
<b>QUEBEC</b> (75 members)					
Abitibi	102,508	45,228	23,230	Guy St-Julien	PC
Argenteuil-Papineau	66,832	38,062	21,105	Lise Bourgault	PC
Jéauce	81,531	47,624	25,028	Gilles Bernier	PC
Jéarharnois-Salaberry	76,867	44,273	27,614	Jean-Guy Hudon	PC
Jéllechassee	80,487	42,460	24,357	Pierre Blais	PC
Jérthier-Maskinongé-Lanaudière	71,466	45,325	31,189	Robert de Cotret	PC
Jlainville-Deux-Montagnes	112,015	62,100	28,863	Monique Landry	PC
Jlonaventure-Îles-de-la-Madeleine	59,678	31,395	15,502	Darryl L. Gray	PC
Jrome-Missisquoi	73,932	41,251	21,678	Gabrielle Bertrand	PC
Jhamby	113,126	61,826	31,535	Richard Grisé	PC
Jhamplain	78,848	46,413	27,467	Michel Champagne	PC
Jharlesbourg	133,515	72,594	37,592	Monique B. Tardif	PC
Jharlevoix	73,556	37,660	23,661	Charles Hamelin	PC
Jhateauguy	88,781	46,688	21,318	Ricardo Lopez	PC
Jhicooutimi	68,018	36,981	22,304	André Harvey	PC
Jrummond	74,977	42,828	23,693	Jean-Guy Guilbault	PC
Jrontenac	70,117	39,938	28,246	Marcel Masse	PC
Jaspé	60,116	31,773	19,128	Charles-Eugène Marin	PC
Jatineau	100,582	51,191	25,873	Claudy Mailly	PC
Jull-Aylmer	82,864	42,530	17,058	Gaston Isabelle	Lib.
Jliette	93,114	53,165	38,839	Roch La Salle	PC
Jnquièrre	69,001	36,957	18,217	Jean-Pierre Blackburn	PC
Jmouraska-Rivière-du-Loup	71,831	37,336	19,651	André Plourde	PC
Jbelle	92,677	51,581	28,286	Fernand Ladouceur	PC
Jc-Saint-Jean	78,074	41,465	25,270	Clément M. Côté	PC
Jngeliet	64,264	39,875	16,872	Michel Côté	PC
JPrairie	116,582	64,435	26,506	Fernand Jourdenais	PC
Jvis	115,058	65,779	32,338	Gabriel Fontaine	PC
JQuébec	124,320	61,757	28,956	Nic Leblanc	PC

### 19.4 Electoral districts, votes polled and names of members of the House of Commons as elected at the thirty-third general election, Sept. 4, 1984 (continued)

Province and electoral district	Population, Census 1981	Total votes polled (incl. rejections)	Votes polled by member	Name of member	Party affiliation <sup>1</sup>
QUEBEC (continued)					
Lotbinière	81,988	46,899	22,584	Maurice Tremblay	PC
Louis-Hébert	103,135	64,613	29,420	Suzanne Duplessis	PC
Manicouagan	81,851	39,704	28,208	Brian Mulroney <sup>2</sup>	PC
Matapédia-Matane	58,877	30,665	15,994	Jean-Luc Joncas	PC
Mégantic-Compton-Stanstead	78,712	43,192	25,679	Francois Gérin	PC
Montmorency-Orléans	86,082	49,011	22,753	Anne Blouin	PC
Pontiac-Gatineau-Labelle	69,921	35,551	21,754	Barry Moore	PC
Portneuf	84,395	47,004	23,797	Marc Ferland	PC
Quebec-Est	76,221	41,752	19,782	Marcel R. Tremblay	PC
Richelieu	82,805	49,201	28,747	Louis Plamondon	PC
Richmond-Wolfe	65,386	35,546	18,069	Alain Tardif	Lib.
Rimouski-Témiscouata	78,348	42,999	25,516	Monique Vézina	PC
Roberval	70,582	37,469	22,981	Benoit Bouchard	PC
Saint-Hyacinthe-Bagot	84,350	49,087	22,984	Andrée P. Champagne	PC
Saint-Jean	90,040	52,232	30,769	André Bissonnette	PC
Saint-Maurice	69,985	41,411	24,050	Jean Chrétien	Lib.
Shelford	97,010	54,463	25,483	Jean Lapierre	Lib.
Sherbrooke	77,989	43,666	22,232	Jean J. Charest	PC
Témiscamingue	80,283	40,756	20,347	Gabriel Desjardins	PC
Terrebonne	136,651	74,302	43,822	Robert Toupin	PC
Trois-Rivières	73,360	42,516	26,843	Pierre H. Vincent	PC
Verchères	121,766	69,897	38,690	Marcel Danis	PC
Island of Montreal and Île-Jésus					
Bourassa	98,777	46,888	20,221	Carlo Rossi	Lib.
Dollard	109,651	57,357	26,076	Gerry Weiner	PC
Duvernay	103,110	60,392	29,877	Vincent Della Noce	PC
Gamelin	84,540	47,661	20,870	Michel Gravel	PC
Hochelaga-Maisonneuve	68,311	32,937	13,244	Edouard Desrosiers	PC
Lachine	80,788	47,356	24,301	Robert E. J. Layton	PC
LaSalle	92,452	50,426	23,238	Claude Lanthier	PC
Laurier	63,454	27,358	9,302	David Berger	Lib.
Laval	116,555	65,891	30,696	Guy Rivard	PC
Laval-des-Rapides	94,898	52,734	22,789	Raymond Garneau	Lib.
Montreal-Mercier	96,248	55,094	25,071	Carole Jacques	PC
Montreal-Sainte-Marie	67,787	32,173	13,668	Jean-Claude Malépart	Lib.
Mount Royal	88,252	48,283	22,716	Sheila Finestone	Lib.
Notre-Dame-de-Grâce-Lachine Est	80,682	41,665	17,910	Warren Allmand	Lib.
Outremont	77,598	35,936	14,508	Lucie Pépin	Lib.
Papineau	70,735	33,366	12,754	André Ouellet	Lib.
Rosemont	73,730	38,052	15,782	Suzanne Blais-Grenier	PC
Saint-Denis	80,815	39,324	18,750	Marcel Prud'homme	Lib.
Saint-Henri-Westmount	78,283	40,722	18,244	Donald J. Johnston	Lib.
Saint-Jacques	65,467	27,905	10,875	Jacques Guilbault	Lib.
Saint-Léonard-Anjou	123,178	60,395	24,520	Alfonso Gagliano	Lib.
Saint-Michel-Ahuntsic	79,124	41,336	17,269	Thérèse Killens	Lib.
Vaudreuil	124,490	69,502	37,499	Pierre H. Cadieux	PC
Verdun-Saint-Paul	75,004	40,626	17,378	Gilbert Chartrand	PC
ONTARIO (95 members)					
Algoma	81,560	37,104	14,113	Maurice Foster	Lib.
Brampton-Georgetown	171,431	85,471	47,743	John McDermid	PC
Brant	104,427	52,541	23,103	Derek Blackburn	NDP
Bruce-Grey	77,144	42,782	27,611	Gary M. Gurbun	PC
Burlington	114,853	60,982	37,577	Bill Kempling	PC
Cambridge	82,150	38,311	22,963	Chris Speyer	PC
Cochrane-Superior	62,383	29,746	12,359	Keith Penner	Lib.
Durham-Northumberland	79,582	42,279	24,968	Allan Lawrence	PC
Elgin	69,707	34,882	23,302	John Wise	PC
Erie	70,271	34,555	19,197	Girve Fretz	PC
Essex-Kent	72,984	32,348	18,661	Jim Caldwell	PC
Essex-Windsor	107,994	47,923	18,746	Steven W. Langdon	NDP
Glengarry-Prescott-Russell	82,706	49,333	26,057	Don Boudria	Lib.
Grey-Simcoe	72,532	39,229	23,342	Gus Mitges	PC
Guelph	84,864	47,281	23,484	William C. Winegard	PC
Haldimand-Norfolk	89,456	46,456	27,296	Bud Bradley	PC
Halton	116,628	63,163	38,076	Otto Jelinek	PC
Hamilton East	76,238	38,712	14,533	Sheila Copps	Lib.
Hamilton Mountain	91,941	52,671	25,789	Ian Deans	NDP
Hamilton-Wentworth	88,205	49,445	25,595	Geoff Scott	PC
Hamilton West	84,601	41,378	16,573	Peter Peterson	PC
Hastings-Frontenac-Lennox and Addington	68,928	35,695	19,996	Bill Vankoughnet	PC
Huron-Bruce	67,814	37,133	23,969	Murray Cardiff	NDP
Kenora-Rainy River	76,073	36,049	13,319	John Parry	PC
Kent	80,690	37,590	18,279	Elliot Hardey	PC
Kingston and the Islands	89,121	47,556	25,997	Flora MacDonald	PC
Kitchener	114,359	57,277	26,710	John Reimer	PC
Lambton-Middlesex	76,223	41,424	22,501	Sid Fraleigh	PC



# 19.4 Electoral districts, votes polled and names of members of the House of Commons as elected at the thirty-third general election, Sept. 4, 1984 (continued)

Province and electoral district	Population, Census 1981	Total votes polled (incl. rejections)	Votes polled by member	Name of member	Party affiliation <sup>1</sup>
<b>ONTARIO (continued)</b>					
Lanark-Renfrew-Carleton	77,419	45,551	24,395	Paul Dick	PC
Leeds-Grenville	80,941	44,043	26,961	Jennifer Cossitt	PC
Lincoln	100,453	53,979	26,318	Shirley Martin	PC
London East	79,890	38,655	18,154	Jim Jepson	PC
London-Middlesex	84,225	39,710	18,586	Terry Clifford	PC
Mississauga North	115,921	67,375	34,517	Tom Hockin	PC
Mississauga South	192,795	95,618	47,124	Robert Horner	PC
Nepean-Carleton	122,262	58,614	32,946	Don Blenkarn	PC
Niagara Falls	121,937	74,737	41,663	Bill Tupper	PC
Nickel Belt	83,146	41,879	22,852	Rob Nicholson	PC
Nipissing	87,957	44,660	17,141	John R. Rodriguez	NDP
Northumberland	68,738	36,700	17,247	Moe Mantha	PC
Ontario	76,775	38,785	24,060	George Hees	PC
Oshawa	111,134	62,884	35,163	Scott Fennell	PC
Ottawa-Carleton	117,519	59,620	25,092	Ed Broadbent <sup>2</sup>	NDP
Ottawa Centre	132,508	77,922	34,693	Barry Turner	PC
Ottawa-Vanier	87,502	52,271	17,844	Michael Cassidy	NDP
Ottawa West	79,102	43,934	21,401	Jean-Robert Gauthier	Lib.
Oxford	89,596	54,739	26,591	David Daubney	PC
Parry Sound-Muskoka	85,920	45,137	25,642	Bruce Halliday	PC
Perth	72,050	39,903	22,739	Stan Darling	PC
Peterborough	66,096	35,062	19,186	A.H. Harry Brightwell	PC
Prince Edward-Hastings	93,352	51,617	27,121	Bill Domm	PC
Renfrew-Nipissing-Pembroke	75,207	38,998	21,034	Jack R. Ellis	PC
St. Catharines	80,740	43,389	19,502	Len Hopkins	Lib.
Sarnia-Lambton	104,663	53,805	26,621	Joe Reid	PC
Sault Ste Marie	83,951	44,372	24,066	Ken James	PC
Simcoe North	64,422	34,249	13,135	Jim Kelleher	PC
Simcoe South	83,204	45,528	24,887	Doug Lewis	PC
Stormont-Dundas	102,682	53,075	30,702	Ronald A. Stewart	PC
Sudbury	87,375	46,017	21,043	Norm Warner	PC
Thunder Bay-Atikokan	81,672	43,902	18,012	Douglas C. Frith	Lib.
Thunder Bay-Nipigon	64,978	35,580	14,715	Iain Angus	NDP
Timiskaming	73,768	37,616	13,901	Ernie Epp	NDP
Timmins-Chapleau	55,186	28,631	15,359	John A. MacDougall	PC
Victoria-Haliburton	64,187	32,013	11,944	Aurèle Gervais	PC
Waterloo	89,280	49,816	30,229	William C. Scott	PC
Welland	108,987	56,864	31,898	Walter McLean	PC
Wellington-Dufferin-Simcoe	80,215	44,265	18,418	Allan Pietz	PC
Windsor-Walkerville	87,379	43,879	29,983	Perrin Beatty	PC
Windsor West	81,968	40,073	14,604	Howard McCurdy	NDP
York North	77,281	33,982	13,624	Herb Gray	Lib.
York-Peel	144,489	88,791	32,200	Anthony Roman	Ind.
Metropolitan Toronto	113,975	60,552	37,493	Sinclair Stevens	PC
Beaches	73,174	36,949	14,914	Neil Young	NDP
Broadview-Greenwood	72,761	33,324	15,066	Lynn McDonald	NDP
Davenport	72,032	25,047	13,248	Charles L. Caccia	Lib.
Don Valley East	109,082	54,907	29,706	Bill Attewell	PC
Don Valley West	85,116	50,199	29,905	John W. Bosley	PC
Eglinton-Lawrence	84,953	43,860	18,645	Roland de Corneille	Lib.
Etobicoke Centre	102,992	60,223	34,026	Michael Wilson	PC
Etobicoke-Lakeshore	83,674	44,856	19,902	Patrick Boyer	PC
Etobicoke North	112,047	56,484	22,713	Bob Pennock	PC
Parkdale-High Park	79,839	39,803	15,879	Andrew Witer	PC
Rosedale	84,668	44,314	23,211	David Crombie	PC
St. Paul's	75,723	44,265	20,914	Barbara McDougall	PC
Scarborough Centre	86,626	43,159	19,968	Pauline Browes	PC
Scarborough East	98,443	47,732	26,349	Robert Hicks	PC
Scarborough West	84,239	41,894	17,028	Reginald Stackhouse	PC
Spadina	73,052	34,318	13,241	Dan Heap	NDP
Trinity	76,166	22,764	9,811	Aideen Nicholson	Lib.
Willowdale	91,369	51,997	22,425	John Ostrom	PC
York Centre	102,686	41,290	20,810	Robert Kaplan	Lib.
York East	98,779	46,785	21,978	Alan Redway	PC
York-Scarborough	207,803	100,946	48,809	W. Paul McCrossan	PC
York South-Weston	87,699	38,094	14,217	John V. Nunziata	Lib.
York West	94,472	40,098	17,629	Sergio Marchi	Lib.
<b>MANITOBA (14 members)</b>					
Brandon-Souris	72,135	36,141	18,813	Lee Clark	PC
Churchill	59,935	23,869	10,829	Rod Murphy	NDP
Dauphin-Swan River	54,713	28,238	11,973	Brian White	PC
Lisgar	67,094	31,531	15,557	Jack Murta	PC
Fortage-Marquette	61,434	31,246	15,378	Charles Mayer	PC
Provencher	73,729	34,544	20,077	Jake Epp	PC
St. Boniface	87,194	49,372	19,548	Leo Duguay	PC
Selkirk-Interlake	66,387	33,898	13,750	Felix Holtmann	PC
Winnipeg-Assiniboine	96,866	52,855	27,567	Dan McKenzie	PC

### 19.4 Electoral districts, votes polled and names of members of the House of Commons as elected at the thirty-third general election, Sept. 4, 1984 (continued)

Province and electoral district	Population, Census 1981	Total votes polled (incl. rejections)	Votes polled by member	Name of member	Party affiliation <sup>1</sup>
<b>MANITOBA (continued)</b>					
Winnipeg-Birds Hill	97,775	52,344	23,903	Bill Blaikie	NDP
Winnipeg-Fort Garry	81,057	46,780	21,286	Lloyd Axworthy	Lib.
Winnipeg North	87,727	42,384	18,209	David Orlikow	NDP
Winnipeg North Centre	59,697	23,210	10,559	Cyril Keeper	NDP
Winnipeg-St. James	60,498	29,641	12,523	George Minaker	PC
<b>SASKATCHEWAN (14 members)</b>					
Assiniboia	59,484	34,044	16,026	Len Gustafson	PC
Humboldt-Lake Centre	62,871	34,778	15,087	Vic Althouse	NDP
Kindersley-Lloydminster	65,459	35,163	20,436	Bill McKnight	PC
Mackenzie	56,985	28,593	11,403	Jack Scowen	PC
Moose Jaw	62,232	34,443	15,803	William Andrew Gottselig	PC
Prince Albert	73,130	37,663	13,359	Stan J. Hovdebo	NDP
Qu'Appelle-Moose Mountain	54,776	29,189	14,470	Alvin Hamilton	PC
Regina East	81,783	45,761	20,474	Simon de Jong	NDP
Regina West	92,633	51,173	23,865	Les Benjamin	PC
Saskatoon East	75,369	46,422	17,087	Don Ravis	PC
Saskatoon West	101,601	52,616	26,012	Ray Hnatyshyn	PC
Swift Current-Maple Creek	53,255	29,433	14,590	Geoff Wilson	PC
The Battlefords-Meadow Lake	64,421	29,865	12,895	John Gormley	PC
Yorkton-Melville	64,314	35,423	18,116	Lorne Nystrom	NDP
<b>ALBERTA (21 members)</b>					
Athabasca	93,492	55,234	23,997	Jack Shields	PC
Bow River	109,047	56,692	43,033	Gordon E. Taylor	PC
Calgary Centre	81,734	37,728	24,924	Harvie Andre	PC
Calgary East	155,450	62,861	36,825	Alex Kindy	PC
Calgary North	106,318	54,026	39,207	Paul Gagnon	PC
Calgary South	140,677	71,498	55,590	Barbara Sparrow	PC
Calgary West	102,699	50,418	37,565	Jim Hawkes	PC
Crowfoot	67,536	33,858	26,291	Arnold Malone	PC
Edmonton East	85,753	33,397	16,119	Bill Lesick	PC
Edmonton North	127,931	50,861	29,074	Steve E. Paproski	PC
Edmonton South	103,431	52,133	32,510	Jim Edwards	PC
Edmonton-Strathcona	116,322	55,016	33,712	David Kilgour	PC
Edmonton West	98,651	43,923	25,764	Murray Dorin	PC
Lethbridge-Foothills	101,457	46,614	31,316	Blaine A. Thacker	PC
Medicine Hat	98,905	44,953	33,978	Bob Porter	PC
Peace River	99,542	41,292	25,648	Albert Cooper	PC
Pembina	138,712	62,493	44,026	Peter Elzinga	PC
Red Deer	116,981	55,387	41,695	Gordon Towers	PC
Vegreville	83,312	40,611	32,480	Don Mazankowski	PC
Wetaskiwin	94,406	42,566	30,128	Stan Schellenberger	PC
Yellowhead	115,368	50,713	37,462	Joe Clark	PC
<b>BRITISH COLUMBIA (28 members)</b>					
Burnaby	102,741	59,190	28,318	Svend J. Robinson	NDP
Capilano	84,735	50,793	28,616	Mary Collins	PC
Cariboo-Chilcotin	86,248	37,796	20,553	Lorne Greenaway	PC
Comox-Powell River	121,154	61,321	27,288	Ray Skelly	NDP
Cowichan-Malahat-The Islands	99,422	54,639	24,555	Jim Manly	NDP
Esquimalt-Saanich	112,003	65,952	31,766	Patrick Crofton	PC
Fraser Valley East	109,635	53,670	32,073	Ross Belsher	PC
Fraser Valley West	128,043	66,001	35,984	Robert L. Wenman	PC
Kamloops-Shuswap	108,008	56,555	30,512	Nelson A. Riis	NDP
Kootenay East-Revelstoke	80,237	39,108	18,129	Stan Graham	PC
Kootenay West	64,742	33,426	15,804	Bob Brisco	PC
Mission-Port Moody	120,321	64,648	30,678	Gerry St. Germain	PC
Nanaimo-Alberni	111,790	60,024	27,410	Ted Schellenberg	PC
New Westminster-Coquitlam	84,896	45,933	21,134	Pauline Jewett	NDP
North Vancouver-Burnaby	87,980	49,966	21,750	Chuck Cook	PC
Okanagan North	121,584	64,259	35,904	Vincent M. Dantzer	PC
Okanagan-Similkameen	95,249	52,006	27,071	Fred King	PC
Prince George-Bulkley Valley	94,638	38,465	18,897	Lorne McCuish	PC
Prince George-Peace River	81,168	33,977	21,154	Frank Oberle	PC
Richmond-South Delta	128,565	69,046	38,168	Tom Siddon	PC
Skeena	75,509	31,055	14,174	Jim Fulton	NDP
Surrey-White Rock-North Delta	137,642	73,990	39,544	Benno Friesen	PC
Vancouver Centre	83,692	50,548	21,704	Pat Carney	PC
Vancouver East	81,676	36,007	18,464	Margaret Anne Mitchell	NDP
Vancouver Kingsway	87,470	39,740	20,179	Ian Waddell	NDP
Vancouver Quadra	80,931	49,824	21,794	John N. Turner <sup>2</sup>	Lib.
Vancouver South	85,454	46,632	25,469	John A. Fraser <sup>3</sup>	PC
Victoria	88,934	53,303	24,588	Allan B. McKinnon	PC

### 19.4 Electoral districts, votes polled and names of members of the House of Commons as elected at the thirty-third general election, Sept. 4, 1984 (concluded)

Province and electoral district	Population, Census 1981	Total votes polled (incl. rejections)	Votes polled by member	Name of member	Party affiliation <sup>1</sup>
<b>YUKON</b> (1 member)					
Yukon	23,153	11,731	6,648	Erik Nielsen	PC
<b>NORTHWEST TERRITORIES</b> (2 members)					
Nunatsiag	16,973	6,935	2,237	Thomas Suluk	PC
Western Arctic	28,768	12,703	5,822	Dave Nickerson	PC

<sup>1</sup> Party standings as a result of the general election, Sept. 4, 1984: Progressive Conservative 211, Liberal 40, New Democratic 30 and one Independent.

<sup>2</sup> Leader of a political party.

<sup>3</sup> Speaker of the House of Commons, as elected by the House of Commons on Oct. 1, 1986.

### 19.5 Voters on the lists and votes polled at the federal general elections of 1972, 1974, 1979, 1980 and 1984

Province or territory	1972	1974	1979	1980	1984
<b>Voters on the lists</b>					
Newfoundland	289,294	304,370	338,730	346,281	370,219
Prince Edward Island	68,992	73,069	80,332	83,976	87,215
Nova Scotia	492,001	524,767	567,648	592,992	613,964
New Brunswick	387,136	406,518	456,707	473,972	491,169
Quebec	3,693,918	3,848,426	4,281,669	4,395,389	4,575,493
Ontario	4,601,282	4,803,485	5,328,123	5,597,683	5,882,320
Manitoba	610,568	633,411	670,098	687,702	704,585
Saskatchewan	558,876	569,316	619,144	639,649	673,289
Alberta	955,531	1,016,314	1,249,688	1,315,770	1,479,675
British Columbia	1,312,832	1,407,066	1,604,890	1,718,562	1,853,110
Yukon <sup>1</sup>	10,857	12,312	13,785	14,046	15,056
Northwest Territories	19,491 <sup>2</sup>	21,299 <sup>2</sup>	24,183	24,394	28,916
<b>Total</b>	<b>13,000,778</b>	<b>13,620,353</b>	<b>15,234,997</b>	<b>15,890,416</b>	<b>16,775,011</b>
<b>Votes polled</b>					
Newfoundland	182,482	175,534	203,271	204,092	242,491
Prince Edward Island	59,078	58,649	65,131	66,558	73,801
Nova Scotia	391,590	388,830	427,746	424,055	463,885
New Brunswick	298,164	289,492	339,560	337,544	379,850
Quebec	2,790,172	2,592,801	3,253,017	2,994,202	3,485,815
Ontario	3,630,542	3,581,767	4,164,502	4,018,101	4,461,416
Manitoba	453,642	448,431	515,483	477,282	516,053
Saskatchewan	442,246	415,268	490,732	457,239	524,566
Alberta	722,338	684,649	855,537	797,394	1,022,274
British Columbia	961,441	1,014,219	1,198,922	1,213,030	1,437,904
Yukon <sup>1</sup>	8,638	8,354	10,240	9,698	11,731
Northwest Territories	14,328 <sup>2</sup>	13,008 <sup>2</sup>	16,859	16,319	19,638
<b>Total</b>	<b>9,974,661</b>	<b>9,671,002</b>	<b>11,541,000</b>	<b>11,015,514</b>	<b>12,638,424</b>

<sup>1</sup> Electoral district of Yukon.

<sup>2</sup> Electoral district of Northwest Territories. (NWT has been divided into two electoral districts since 1976.)

### 19.6 Provinces and territories of Canada, dates of admission to Confederation, legislative processes by which admission was effected, present area and seat of government

Province, territory or district	Date of admission or creation	Legislative process	Present area km <sup>2</sup>	Seat of provincial or territorial government
Ontario <sup>1</sup>	July 1, 1867	Act of Imperial Parliament - Constitution Act, 1867 (formerly The British North America Act, 1867) (Br. Stat. 1867, c.3) and Imperial Order in Council, May 22, 1867	1 068 580	Toronto
Quebec <sup>2</sup>	July 1, 1867		1 540 680	Quebec
Iowa Scotia	July 1, 1867		55 490	Halifax
New Brunswick	July 1, 1867		73 440	Fredericton

## 19.6 Provinces and territories of Canada, dates of admission to Confederation, legislative processes by which admission was effected, present area and seat of government (concluded)

Province, territory or district	Date of admission or creation	Legislative process	Present area km <sup>2</sup>	Seat of provincial or territorial government
Manitoba <sup>3</sup>	July 15, 1870	Manitoba Act, 1870 (SC 1870, c.3) and Imperial Order in Council, June 23, 1870	649 950	Winnipeg
British Columbia	July 20, 1871	Imperial Order in Council, May 16, 1871	947 800	Victoria
Prince Edward Island	July 1, 1873	Imperial Order in Council, June 26, 1873	5 660	Charlottetown
Saskatchewan <sup>4</sup>	Sept. 1, 1905	Saskatchewan Act (SC 1905, c.42)	652 330	Regina
Alberta <sup>4</sup>	Sept. 1, 1905	Alberta Act (SC 1905, c.3)	661 190	Edmonton
Newfoundland	Mar. 31, 1949	Newfoundland Act (formerly The British North America Act, 1949) (Br. Stat. 1949, c.22)	405 720	St. John's
Northwest Territories <sup>5</sup>	July 15, 1870	Act of Imperial Parliament-Rupert's Land Act, 1868 (Br. Stat. 1868, c.105) and Imperial Order in Council, June 23, 1870	3 426 320	Yellowknife
Mackenzie <sup>6</sup>	Jan. 1, 1920	Order in Council, Mar. 16, 1918	1 382 740	Whitehorse
Keewatin <sup>6</sup>	Jan. 1, 1920		600 590	
Franklin <sup>6</sup>	Jan. 1, 1920		1 422 990	
Yukon Territory <sup>7</sup>	June 13, 1898	Yukon Territory Act, 1898 (SC 1898, c.6)	483 450	
Canada			9 970 610 <sup>8</sup>	

<sup>1</sup> The area of Ontario was extended by the Ontario Boundaries Extension Act, 1912 (SC 1912, c.40).

<sup>2</sup> Extended by Quebec Boundaries Extension Act, 1912 (SC 1912, c.45).

<sup>3</sup> Extended by the Extension of Boundaries Act of Manitoba, 1881 and the Manitoba Boundaries Extension Act, 1912 (SC 1912, c.32).

<sup>4</sup> Saskatchewan and Alberta created as provinces in 1905 from the area formerly comprised in the provisional districts of Assiniboia, Athabaska, Alberta and Saskatchewan established May 17, 1882 by minute of Canadian Privy Council concurred in by Dominion Parliament and Order in Council, Oct. 2, 1895.

<sup>5</sup> By an Imperial Order in Council passed on June 23, 1870 pursuant to the Rupert's Land Act, 1868 (Br. Stat. 1868, c.105), the former territories of the Hudson's Bay Company known as Rupert's Land and the North-Western Territory were transferred to Canada effective July 15, 1870. These territories were designated as the North-West Territories by the Act of SC 1869, c.3, and as the Northwest Territories by RSC 1906, c.62. By Imperial Order in Council of July 31, 1880 (effective Sept. 1, 1880), all British territories and possessions in North America not already included within Canada and all islands adjacent thereto (with the exception of the Colony of Newfoundland and its dependencies) were annexed to Canada and these additional territories were formally included in the North-West Territories by SC 1905, c.27. The province of Manitoba was formed out of a portion of the territories by the Manitoba Act, 1870 (SC 1870, c.3) and a further portion was added to Manitoba in 1881 by SC 1881, c.14. The provinces of Alberta and Saskatchewan were formed out of portions of the territories in 1905 and in 1912 other portions were added to Manitoba, Ontario and Quebec.

<sup>6</sup> By SC 1876, c.21, a separate district to be known as the District of Keewatin was established and provision was made for the local government thereof. The Act was expressed to come into force by proclamation. It provided that portions of the District might be re-annexed to the North-West Territories by proclamation; in 1886 a portion of the District of Keewatin was re-annexed and in 1905 the entire Keewatin District was re-annexed. The Act of 1876 was never proclaimed. By Order in Council of May 8, 1882 the provisional districts of Assiniboia, Saskatchewan, Alberta and Athabaska were created for the convenience of settlers and for postal purposes. By Order in Council of Oct. 2, 1895 the further provisional districts of Ungava, Franklin, Mackenzie and Yukon were created. The boundaries of these provisional districts were re-defined by Order in Council of Dec. 18, 1897. Subsequently the Yukon Territory was formed, the provinces of Alberta and Saskatchewan were created and other portions of the territories were annexed to Quebec, Ontario and Manitoba. By Order in Council dated Mar. 16, 1918 (effective Jan. 1, 1920) the remaining portions of the Northwest Territories were divided into three provisional districts known as Mackenzie, Keewatin and Franklin.

<sup>7</sup> The provisional district of Yukon established in 1895 was created a judicial district of the North-West Territories by proclamation issued pursuant to Sect. 51 of the North-West Territories Act (RSC 1886, c.50) on Aug. 16, 1897 and, by the Yukon Territory Act (SC 1898, c.6), was declared to be a separate territory.

<sup>8</sup> Recalculated figures 1981.

## 19.7 Number of municipalities classified by type and size group, by province, as at Jan. 1, 1980-83

Year, type and size group	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT	NWT	Canada
1980													
TYPE													
Regional municipalities	—	—	—	—	75	39	—	—	—	28	—	—	142
Metropolitan and regional municipalities <sup>1</sup>	—	—	—	—	3	12	—	—	—	—	—	—	15
Counties and regional districts	—	—	—	—	72	27	—	—	—	28	—	—	127
Unitary municipalities	168	38	65	115	1,520	789	185	794	332	140	3	7	4,156
Cities <sup>2</sup>	2	1	3	6	65	47	5	11	10	33	2	1	186
Towns	166	8	38	21	195	144	35	138	107	11	1	5	869
Villages	—	29	—	88	247	120	40	346	167	58	—	1	1,096
Rural municipalities <sup>3</sup>	—	—	24	—	1,013	478	105	299	48	38	—	—	2,005
Quasi-municipalities <sup>4</sup>	140	—	—	—	—	11	17	—	19	329	4	18	538
Total	308	38	65	115	1,595	839	202	794	351	497	7	25	4,836



### 19.7 Number of municipalities classified by type and size group, by province, as at Jan. 1, 1980-83 (continued)

Year, type and size group	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT	NWT	Canada
<b>POPULATION SIZE GROUP</b> (1976 Census)													
Unitary municipalities													
Over 100,000	—	—	1	—	4	17	1	2	2	3	—	—	30
50,000 - 99,999	1	—	2	2	14	14	—	—	—	9	—	—	42
10,000 - 49,999	4	1	17	5	71	78	3	6	14	26	1	—	226
Under 10,000	163	37	45	108	1,431	680	181	786	316	102	2	7	3,858
<b>Total</b>	<b>168</b>	<b>38</b>	<b>65</b>	<b>115</b>	<b>1,520</b>	<b>789</b>	<b>185</b>	<b>794</b>	<b>332</b>	<b>140</b>	<b>3</b>	<b>7</b>	<b>4,156</b>
<b>1981</b>													
<b>TYPE</b>													
Regional municipalities	—	—	—	—	75	39	—	—	—	28	—	—	142
Metropolitan and regional municipalities <sup>1</sup>	—	—	—	—	3	12	—	—	—	—	—	—	15
Counties and regional districts	—	—	—	—	72	27	—	—	—	28	—	—	127
Unitary municipalities	168	39	66	115	1,526	791	185	797	332	141	3	7	4,170
Cities <sup>2</sup>	2	1	3	6	65	49	5	12	11	34	2	1	191
Towns	166	8	39	21	196	144	35	142	110	10	1	5	877
Villages	—	30	—	88	253	119	40	344	163	58	—	1	1,096
Rural municipalities <sup>3</sup>	—	—	24	—	1,012	479	105	299	48	39	—	—	2,006
Quasi-municipalities <sup>4</sup>	140	—	—	—	—	8	17	—	19	329	5	18	536
<b>Total</b>	<b>308</b>	<b>39</b>	<b>66</b>	<b>115</b>	<b>1,601</b>	<b>838</b>	<b>202</b>	<b>797</b>	<b>351</b>	<b>498</b>	<b>8</b>	<b>25</b>	<b>4,848</b>
<b>POPULATION SIZE GROUP</b> (1976 Census)													
Unitary municipalities													
Over 100,000	—	—	1	—	4	17	1	2	2	3	—	—	30
50,000 - 99,999	1	—	2	2	14	14	—	—	—	9	—	—	42
10,000 - 49,999	4	1	17	5	71	78	3	6	14	26	1	—	226
Under 10,000	163	38	46	108	1,437	682	181	789	316	103	2	7	3,873
<b>Total</b>	<b>168</b>	<b>39</b>	<b>66</b>	<b>115</b>	<b>1,526</b>	<b>791</b>	<b>185</b>	<b>797</b>	<b>332</b>	<b>141</b>	<b>3</b>	<b>7</b>	<b>4,171</b>
<b>1982</b>													
<b>TYPE</b>													
Regional municipalities	—	—	—	—	75	39	—	—	—	28	—	—	142
Metropolitan and regional municipalities <sup>1</sup>	—	—	—	—	3	12	—	—	—	—	—	—	15
Counties and regional districts	—	—	—	—	72	27	—	—	—	28	—	—	127
Unitary municipalities	169	39	66	115	1,527	791	185	799	332	142	3	7	4,175
Cities <sup>2</sup>	2	1	3	6	66	49	5	12	11	35	2	1	193
Towns	167	8	39	21	193	144	35	142	111	10	1	5	876
Villages	—	30	—	88	249	119	40	346	162	56	—	1	1,091
Rural municipalities <sup>3</sup>	—	—	24	—	1,019	479	105	299	48	41	—	—	2,015
Quasi-municipalities <sup>4</sup>	141	—	—	—	—	8	17	—	19	285	5	24	499
<b>Total</b>	<b>310</b>	<b>39</b>	<b>66</b>	<b>115</b>	<b>1,602</b>	<b>838</b>	<b>202</b>	<b>799</b>	<b>351</b>	<b>455</b>	<b>8</b>	<b>31</b>	<b>4,816</b>
<b>POPULATION SIZE GROUP</b> (1976 Census)													
Unitary municipalities													
Over 100,000	—	—	1	—	4	17	1	2	2	3	—	—	30
50,000 - 99,999	1	—	2	2	14	14	—	—	—	9	—	—	42
10,000 - 49,999	4	1	17	6	71	78	3	6	14	26	1	—	227
Under 10,000	164	38	46	107	1,438	682	181	791	316	104	2	7	3,876
<b>Total</b>	<b>169</b>	<b>39</b>	<b>66</b>	<b>115</b>	<b>1,527</b>	<b>791</b>	<b>185</b>	<b>799</b>	<b>332</b>	<b>142</b>	<b>3</b>	<b>7</b>	<b>4,175</b>
<b>1983</b>													
<b>TYPE</b>													
Regional municipalities	—	—	—	—	96	39	—	—	—	28	—	—	163
Metropolitan and regional municipalities <sup>1</sup>	—	—	—	—	3	12	—	—	—	—	—	—	15
Counties and regional districts	—	—	—	—	93	27	—	—	—	28	—	—	148
Unitary municipalities	169	39	66	114	1,518	792	185	805	332	142	3	7	4,172
Cities <sup>2</sup>	2	1	3	6	65	49	5	12	11	35	2	1	192
Towns	167	8	39	23	192	145	35	142	111	10	1	5	878
Villages	—	30	—	85	243	119	40	352	162	55	—	1	1,087
Rural municipalities <sup>3</sup>	—	—	24	—	1,018	479	105	299	48	42	—	—	2,015
Quasi-municipalities <sup>4</sup>	141	—	—	—	—	7	17	—	19	285	5	26	500
<b>Total</b>	<b>310</b>	<b>39</b>	<b>66</b>	<b>114</b>	<b>1,614</b>	<b>838</b>	<b>202</b>	<b>805</b>	<b>351</b>	<b>455</b>	<b>8</b>	<b>33</b>	<b>4,835</b>

19.7 Number of municipalities classified by type and size group, by province, as at Jan. 1, 1980-83 (concluded)

Year, type and size group	Nfld.	PEI	NS	NB	Que.	Ont.	Man.	Sask.	Alta.	BC	YT	NWT	Canada
POPULATION SIZE GROUP (1981 Census)													
Unitary municipalities													
Over 100,000	—	—	1	—	4	17	1	2	2	3	—	—	30
50,000 - 99,999	1	—	2	2	16	14	—	—	2	9	—	—	46
10,000 - 49,999	5	1	17	4	76	78	4	6	15	30	1	—	237
Under 10,000	163	38	46	108	1,422	683	180	797	313	100	2	7	3,859
Total	169	39	66	114	1,518	792	185	805	332	142	3	7	4,172

<sup>1</sup> Includes urban communities in Quebec; and Metropolitan Toronto, regional municipalities and the district municipality of Muskoka in Ontario.  
<sup>2</sup> Includes the four boroughs of Metropolitan Toronto.  
<sup>3</sup> Includes municipalities in Nova Scotia; parishes, townships, united townships and municipalities without designation in Quebec; townships in Ontario; rural municipalities in Manitoba and Saskatchewan; municipal districts and counties in Alberta; and districts in British Columbia.  
<sup>4</sup> Includes local government communities and the metropolitan area in Newfoundland; improvement districts in Ontario and Alberta; local government districts in Manitoba; local improvement districts in British Columbia and Yukon; and hamlets in Northwest Territories.

19.8 Public service employees, by department, sex and language group, 1985

Department	Men		Women		Anglophones		Francophones		Total
	No.	%	No.	%	No.	%	No.	%	
Agriculture	8,032	71.9	3,144	28.1	8,666	77.9	2,459	22.1	11,177
Bureau of Pensions Advocates	38	30.6	86	69.4	97	78.2	27	21.8	124
Canada Labour Relations Board	31	36.9	53	63.1	33	39.3	51	60.7	84
Canadian Aviation Safety Board	95	63.3	55	36.7	109	73.6	39	26.4	150
Canadian Grain Commission	560	76.1	176	23.9	686	94.0	44	6.0	736
Canadian Human Rights Commission	54	35.5	98	64.5	100	65.8	52	34.2	152
Canadian Intergovernmental Conference Secretariat	10	50.0	10	50.0	4	20.0	16	80.0	20
Canadian International Development Agency	608	52.0	561	48.0	534	45.7	635	54.3	1,169
Canadian Pension Commission	103	32.4	215	67.6	262	82.6	55	17.4	318
Canadian Radio-television and Telecommunications Commission	203	51.3	193	48.7	194	49.1	201	50.9	396
Canadian Transport Commission	450	58.0	326	42.0	521	67.1	255	32.9	776
Communications	1,416	63.3	821	36.7	1,534	68.7	700	31.3	2,237
Consumer and Corporate Affairs	1,379	57.6	1,014	42.4	1,498	62.6	894	37.4	2,393
Correctional Service of Canada	7,692	71.7	3,029	28.3	7,208	67.4	3,494	32.6	10,721
Employment and Immigration	9,311	38.1	15,155	61.9	16,000	65.6	8,373	34.4	24,466
Energy, Mines and Resources	3,318	66.7	1,654	33.3	3,775	75.9	1,197	24.1	4,972
Environment	6,655	72.6	2,508	27.4	7,265	79.5	1,872	20.5	9,163
External Affairs	2,615	59.7	1,765	40.3	3,108	71.1	1,264	28.9	4,380
Federal Court	72	40.9	104	59.1	84	47.7	92	52.3	176
Federal-Provincial Relations Office	29	53.7	25	46.3	28	51.9	26	48.1	54
Finance	478	54.4	400	45.6	583	66.5	294	33.5	878
Fisheries and Oceans	4,323	73.5	1,558	26.5	5,019	85.5	851	14.5	5,881
Immigration Appeal Board	25	36.8	43	63.2	45	66.2	23	33.8	68
Indian Affairs and Northern Development	2,657	48.5	2,821	51.5	4,588	84.8	824	15.2	5,478
Insurance	137	62.3	83	37.7	163	74.1	57	25.9	220
International Joint Commission	19	51.4	18	48.6	17	94.4	1	5.6	37
Investment Canada	59	48.0	64	52.0	96	79.3	25	20.7	123
Justice	586	42.7	787	57.3	922	67.3	448	32.7	1,373
Labour	370	47.0	417	53.0	545	69.3	242	30.7	787
Law Reform Commission of Canada	7	18.9	30	81.1	12	32.4	25	67.6	37
National Defence (civilian)	23,011	68.0	10,816	32.0	26,973	80.1	6,712	19.9	33,827
National Energy Board	248	60.3	163	39.7	320	78.2	89	21.8	411
National Health and Welfare	3,386	35.7	6,087	64.3	7,123	77.2	2,102	22.8	9,473
National Library of Canada	154	28.7	382	71.3	339	63.2	197	36.8	536
National Museums of Canada	571	54.9	469	45.1	711	68.4	329	31.6	1,040
National Parole Board	72	27.2	193	72.8	157	59.5	107	40.5	265
National Revenue (Customs and Excise)	5,579	56.9	4,223	43.1	7,206	73.6	2,586	26.4	9,802
National Revenue (Taxation)	8,698	50.8	8,424	49.2	12,541	73.3	4,559	26.7	17,122

### 19.8 Public service employees, by department, sex and language group, 1985 (concluded)

Department	Men		Women		Anglophones		Francophones		Total
	No.	%	No.	%	No.	%	No.	%	
Office of the Chief Electoral Officer	34	57.6	25	42.4	12	20.3	47	79.7	59
Office of the Commissioner for Federal Judicial Affairs	12	37.5	20	62.5	10	32.3	21	67.7	32
Office of the Commissioner of Official Languages	64	45.7	76	54.3	36	25.7	104	74.3	140
Office of the Coordinator, Status of Women	—	—	35	100.0	19	54.3	16	45.7	35
Office of the Grain Transportation Agency Administrator	11	50.0	11	50.0	22	100.0	—	—	22
Offices of the Information and Privacy Commissioners	28	59.6	19	40.4	29	61.7	18	38.3	47
Office of the Secretary to the Governor General	43	42.2	59	57.8	34	35.1	63	64.9	102
Pension Review Board	6	27.3	16	72.7	11	50.0	11	50.0	22
Privy Council Office	155	42.2	212	57.8	187	52.1	172	47.9	367
Public Archives of Canada	461	56.9	349	43.1	500	61.8	309	38.2	810
Public Service Commission	1,016	39.6	1,547	60.4	1,005	39.9	1,514	60.1	2,563
Public Service Staff Relations Board	75	48.4	80	51.6	72	49.0	75	51.0	155
Public Works	5,961	75.9	1,890	24.1	5,743	73.4	2,086	26.6	7,851
Regional Industrial Expansion Restrictive Trade Practices Commission	1,548	54.1	1,312	45.9	1,970	68.9	889	31.1	2,860
Royal Canadian Mounted Police (public service employees)	7	50.0	7	50.0	8	57.1	6	42.9	14
Science and Technology	636	19.0	2,712	81.0	2,659	79.6	681	20.4	3,348
Secretary of State of Canada	46	46.9	52	53.1	59	61.5	37	38.5	98
Solicitor General	1,050	34.4	2,000	65.6	951	31.2	2,099	68.8	3,050
Statistics Canada	128	42.0	177	58.0	219	73.2	80	26.8	305
Supply and Services	2,181	47.4	2,422	52.6	2,919	63.8	1,656	36.2	4,603
Supreme Court	5,002	49.3	5,137	50.7	6,006	59.7	4,059	40.3	10,139
	29	43.3	38	56.7	28	41.8	39	58.2	67
Tariff Board	18	58.1	13	41.9	23	74.2	8	25.8	31
Tax Court of Canada	16	28.1	41	71.9	28	49.1	29	50.9	57
Transport	16,825	80.0	4,202	20.0	16,226	77.3	4,755	22.7	21,027
Treasury Board (Office of the Comptroller General)	94	62.3	57	37.7	114	75.5	37	24.5	151
Treasury Board (Secretariat)	423	53.9	362	46.1	517	65.9	268	34.1	785
Veterans Affairs	1,456	44.0	1,856	56.0	1,873	56.9	1,420	43.1	3,312
Veterans' Land Administration	71	44.9	87	55.1	143	90.5	15	9.5	158
War Veterans Allowance Board	14	51.9	13	48.1	17	63.0	10	37.0	27
<b>Total</b>	<b>130,461</b>	<b>58.4</b>	<b>92,797</b>	<b>41.6</b>	<b>160,506</b>	<b>72.2</b>	<b>61,741</b>	<b>27.8</b>	<b>223,173<sup>1</sup></b>

Note: The sums of the figures do not always equal the totals because, in a number of cases, the documents did not specify language group. For language group, percentage is based on the total of employees whose first official language is known.

<sup>1</sup> Total number of employees is drawn from the Common Government of Canada Population Reporting File, which is based on payroll information of the Department of Supply and Services on Dec. 31, 1985. Other population data is derived from the Commission's statistical file. There is consequently a slight difference between the sum of the figures and the total.

### 19.9 Public service employees, by geographic area (Canada and outside Canada), sex and language group, 1984 and 1985

Year and geographic area	Men		Women		Anglophones		Francophones		Total
	No.	%	No.	%	No.	%	No.	%	
<b>1984</b>									
Newfoundland	3,989	73.3	1,451	26.7	5,369	99.1	48	0.9	5,440
Prince Edward Island	1,246	61.0	796	39.0	1,848	90.8	187	9.2	2,042
Nova Scotia	10,367	72.3	3,971	27.7	13,755	96.4	510	3.6	14,338
New Brunswick	4,695	62.3	2,838	37.7	5,468	72.9	2,034	27.1	7,533
Quebec (except NCR)	19,957	62.0	12,232	38.0	1,851	5.8	30,115	94.2	32,189
Quebec (NCR)	8,684	50.8	8,414	49.2	9,532	55.8	7,541	44.2	17,098
Ontario	30,046	54.6	24,945	45.4	36,900	67.4	17,883	32.6	54,991
Ontario (except NCR)	20,894	57.5	15,461	42.5	34,374	95.1	1,773	4.9	36,355
Manitoba	5,503	56.4	4,250	43.6	9,302	96.6	329	3.4	9,753
Saskatchewan	3,336	56.1	2,607	43.9	5,755	98.5	87	1.5	5,943
Alberta	7,712	58.1	5,572	41.9	12,914	97.8	293	2.2	13,284
British Columbia	12,846	61.7	7,966	38.3	20,454	98.8	257	1.2	20,812
Yukon	441	46.4	509	53.6	906	98.1	18	1.9	950
Northwest Territories	848	55.2	689	44.8	1,439	95.2	73	4.8	1,537
Outside Canada	1,258	76.8	380	23.2	1,196	73.2	438	26.8	1,638
<b>Total</b>	<b>131,933</b>	<b>58.9</b>	<b>92,093</b>	<b>41.1</b>	<b>161,158</b>	<b>72.3</b>	<b>61,614</b>	<b>27.7</b>	<b>224,026<sup>1</sup></b>

### 19.9 Public service employees, by geographic area (Canada and outside Canada), sex and language group, 1984 and 1985 (concluded)

Year and geographic area	Men		Women		Anglophones		Francophones		Total
	No.	%	No.	%	No.	%	No.	%	
1985									
Newfoundland	3,996	73.3	1,459	26.7	5,381	99.1	50	0.9	5,455
Prince Edward Island	1,264	59.2	872	40.8	1,933	90.8	197	9.2	2,136
Nova Scotia	10,225	71.8	4,012	28.2	13,677	96.4	515	3.6	14,237
New Brunswick	4,618	61.8	2,849	38.2	5,360	72.0	2,087	28.0	7,467
Quebec (except NCR)	19,607	61.5	12,292	38.5	1,790	5.6	29,908	94.4	31,899
Quebec (NCR)	8,527	50.4	8,381	49.6	9,401	55.7	7,492	44.3	16,908
Ontario (NCR)	29,996	54.4	25,178	45.6	36,867	67.0	18,154	33.0	55,174
Ontario (except NCR)	20,371	56.8	15,514	43.2	33,982	95.1	1,740	4.9	35,886
Manitoba	5,480	56.2	4,273	43.8	9,305	96.3	361	3.7	9,753
Saskatchewan	3,280	55.1	2,671	44.9	5,807	98.4	95	1.6	5,951
Alberta	7,691	57.6	5,653	42.4	12,974	97.7	306	2.3	13,344
British Columbia	12,823	61.5	8,033	38.5	20,483	98.6	282	1.4	20,856
Yukon	439	47.3	490	52.7	902	98.5	14	1.5	929
Northwest Territories	805	52.7	723	47.3	1,385	95.6	64	4.4	1,528
Outside Canada	1,229	76.6	376	23.4	1,166	72.7	438	27.3	1,605
Total	130,461	58.4	92,797	41.6	160,506	72.2	61,741	27.8	223,173 <sup>1</sup>

<sup>1</sup> See note and footnote to Table 19.8.

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CHAPTER 20

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## JUDICIAL SYSTEM

## **CHAPTER 20**

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### **JUDICIAL SYSTEM**

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## THEN



"... the proportion of convicts has increased just about pro rata with the population (averaging one in 4,000 persons), the opinion of the Inspector of Penitentiaries to the contrary notwithstanding... The convicts comprised 1,229 males and 22 females... No woman has yet been convicted of a penitentiary offence in Manitoba." (1891)

"[In 1873] authority was given for the organization of a Mounted Police Force, for the better preservation of law and order in the North-West Territories... The amount of work that is yearly done by this Force can hardly be realized by any one

unfamiliar with the enormous extent of territory that they have to watch. They patrol steadily along the frontier from Emerson to the Rocky Mountains, a distance of 800 miles, keeping down raiding, cattle stealing and smuggling – especially of intoxicants, and in this way are of the greatest possible use – as well as protecting peaceable settlers along the border." (1889)

E. SIDNEY CRAWLEY,

*Barrister and Attorney at Law, Notary  
Public, &c.,*

42, BEDFORD ROW,

HALIFAX, N.S.

## NOW

Over the six-year period 1980-85, the number of criminal offences increased 1.2%. According to 1985 data, property crimes were about seven times as numerous as crimes of violence.

As of December 31, 1985, the Royal Canadian Mounted Police force had a total personnel strength of 19,629 including regular members, special constables, civilian members and public service employees.

The Ontario Provincial Police, a Crown force, is the third largest deployed police force in North America, with a strength of 4,345 (1985) uniformed and civilian personnel.

Government spending on adult correctional services during 1985-86 amounted to about \$1.38 billion, including \$744 million federally and \$630 million provincially.



## CHAPTER 20

# JUDICIAL SYSTEM

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### 20.1 Legal system

#### 20.1.1 Common law and le droit civil

Common law as opposed to le droit civil contrasts two of the world's basic legal systems. Common law originated in England and is in force today in most Commonwealth countries, in the United States, and in the private law of nine Canadian provinces. Le droit civil originated in ancient Rome and prevails today in many Western European countries and in the private law of Quebec. In Canada, Quebec is a droit civil province in its private law only, whereas the other provinces are wholly common law.

Common law began its development in feudal England after the Norman conquest in 1066. It is a system of rules based on statutes and on precedents of previous court decisions. Thus the common law is made up of judicial decisions, and customary practices applied over the years to actual cases and situations.

Two cases are seldom exactly alike. Thus the court frequently needs to modify an earlier common law principle to reflect any new differences. In this way the law is able to grow and change with the times. Perhaps the most important way the law may be changed occurs when Parliament or a provincial legislature enacts a statute which overrides the common law dealing with the same point.

Le droit civil has its roots in the legal codes prepared centuries ago for the Roman Emperor Justinian and later for the Emperor Napoleon. The codification ordered by Napoleon became the model for the Civil Code of Quebec enacted in 1866.

Briefly, a civil code consists of relatively simple but comprehensive statements of rules which embody general principles of law. In theory, when a court is considering a case it does not consult the decisions of earlier courts as in a common law situation. Rather, it looks for the specific rule as found in an article of the civil code.

To contrast these two methods, consider this: the common law of negligence (carelessness

causing injury to another) is embedded in several thousands of court decisions taking up many thousands of pages in the law reports. The civil law of negligence of Quebec, on the other hand, can be found in just three brief articles of the civil code, beginning with this basic rule: "Every person capable of discerning right from wrong is responsible for the damage caused by his fault..." (Article 1053).

As would be expected, the reality is considerably different from the theory. The common law of negligence is relatively simple and understandable. A lawyer in a common law province would not normally have to do much research to find the rule that the courts would probably apply to some specific accident case. Nor is the rule in Article 1053 of the Quebec Civil Code as simple as might at first appear. What, for example, does 'fault' mean? In reality, the Quebec courts, which use the civil code, do resort to prior decisions and to the works of respected legal authors to help them determine the meaning of the code rules so that they may apply them to the cases they decide.

Thus decisions of similar cases turn out to be remarkably alike under both common law and civil law. Only the method by which the decision is reached is different.

#### 20.1.2 Civil (non-criminal) law

Civil or non-criminal law is used to settle private disputes between individuals and other private parties. Civil cases (called civil suits) arise because two parties differ on some matter involving financial transactions, property, contracts, a private injury (called a tort) or civil rights.

Civil law in Canada is based on common law except in Quebec where it is governed by the civil code. Authority to pass legislation on civil law matters is divided between Parliament and the provincial and territorial legislatures. Legislatures of the provinces and territories have jurisdiction over contracts, torts and property laws. Both levels of government have power to make laws to regulate the activities of corporations

as well as tax laws. Bankruptcy and insolvency, patents and copyrights, and banks and banking laws fall under the jurisdiction of Parliament.

### 20.1.3 Human rights

In December 1981, a resolution on the constitution was adopted by Parliament. The Parliament of Britain ratified the request in 1982 and it was proclaimed in Canada as the Constitution Act, 1982, as Schedule II of the Canada Act. This act includes the Canadian Charter of Rights and Freedoms, establishing for all Canadians protection of basic rights and freedoms essential to maintaining a free and democratic society and a united country. The explanation of the charter states that this charter applies to all governments, federal, provincial and territorial, and will provide protection of the following:

**Fundamental freedoms** which include freedom of conscience and religion, freedom of thought, belief, opinion and expression, including freedom of the press and other media of communication, freedom of peaceful assembly, and freedom of association;

**Democratic rights** giving Canadians the right to vote in all elections and to seek a seat in the House of Commons or in a legislative assembly;

**Mobility rights** which include the right to enter, remain in and leave Canada and the right to live and seek employment anywhere in Canada;

**Legal rights** explained as the right to life, liberty and security of the person and the right not to be deprived thereof except in accordance with the principles of fundamental justice;

**Equality rights for all individuals**, allowing no discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability;

**Official languages of Canada**, being English and French, giving them equality of status and equal rights and privileges as to their use in all institutions of the Parliament and Government of Canada;

**Minority language education rights** which set out the rights of Canadians regarding the allowance of an education in either the English or French language; and

**Native people's rights** are protected in that the guarantee of certain rights and freedoms shall not be construed so as to abrogate and derogate from any aboriginal treaty or other rights or freedoms that pertain to the aboriginal peoples of Canada.

As well, the charter is designed to protect minorities in that it must be interpreted in a way that will preserve and enhance the multicultural heritage of Canadians.

The Charter of Rights entrenches in the Canadian constitution the same concepts that were passed in the Canadian Bill of Rights (RSC 1970, Appendix III) enacted in 1960. It also overlaps with the Canadian Human Rights Act passed in 1977, which set out specific rights, and established the Canadian Human Rights Commission and a privacy commissioner to administer the rights and obligations included in the act.

To control abuse of rights and freedoms, and to protect the rights of everyone in Canada, Section 1 of the charter states that the Canadian Charter of Rights and Freedoms guarantees the rights and freedoms set out in it subject only to such reasonable limits prescribed by law as can be demonstrably justified in a free and democratic society. In this way, rights are not absolute, but qualified.

### 20.1.4 Criminal law

Criminal law deals with crimes and their punishment. A crime may be described as an act against society, as distinct from a dispute between individuals. It has been defined as any act done in violation of duties an individual owes to the community, for which act the law has provided that the offender shall be punished.

The criminal law system in Canada has its basis in the Constitution Act, 1867 (the former BNA Act). Section 91 provides that exclusive legislative authority of Parliament extends to the criminal law, except the constitution of courts of criminal jurisdiction but including the procedure in criminal matters. By Section 92, provincial legislatures may make laws in relation to the administration of justice in the province, including the constitution, maintenance, and organization of provincial courts, and may impose punishment by fine, penalty, or imprisonment to enforce any law of the province.

At the time of Confederation each of the colonies had its own body of statutes relating to criminal law. In 1869, in an attempt to assimilate them into a uniform system applicable throughout Canada, Parliament passed a series of acts, some dealing with specific offences and others with procedure. Most notable of the latter was the Criminal Procedure Act, but other acts provided for the speedy trial or summary trial of indictable offences, the powers and jurisdiction of justices of the peace in summary conviction matters and otherwise, and the procedure in respect of juvenile offenders.

Codification of the criminal law through a criminal code bill founded on the English draft code of 1878, Stephen's *Digest of criminal law*, Burbridge's *Digest of the Canadian criminal law*,

and the relevant Canadian statutes, was brought about by the justice minister, Sir John Thompson, in 1892. This bill became the Criminal Code of Canada and came into force in July 1893.

The Criminal Code has been revised and amended frequently. In its present form it defines offences in the following general categories: offences against public order; firearms and other offensive weapons; offences against the administration of law and justice; sexual offences, public morals and disorderly conduct; invasion of privacy; disorderly houses, gaming and betting; offences against the person and reputation; offences against rights of property; fraudulent transactions; wilful and forbidden acts in respect of certain property; and offences relating to currency. The Code also defines procedure to be followed in the prosecution of both indictable and summary conviction offences.

Recent amendments in the area of sexual assault, the patriation of the constitution with the enhanced Charter of Rights and proposed changes in sentencing will have, as the courts build up a body of interpretation, a substantial impact on criminal law in Canada.

### **20.1.5 Law Reform Commission of Canada**

The commission was established by the Law Reform Commission Act, which came into force in June 1971, to study and to keep under review the federal laws of Canada with a view to making recommendations for their improvement, modernization and reform. Specifically included among the commission's statutory objects is innovation in the development of new approaches to and new concepts of the law, in keeping with and responsive to the changing needs of modern Canadian society and its individual members. The commission has a specific mandate to make reform recommendations which reflect the distinctive concepts and institutions of the common law and the civil law legal systems of Canada. This statutory objective also sets the commission upon the path of reconciliation of differences and discrepancies in the expression and application of the law arising out of differences in those concepts and institutions.

The commission is required by statute to submit, from time to time, for the approval of the Minister of Justice, specific programs of study of particular laws or branches of law. It must include in such programs any study requested by the Minister to which, in his opinion, it is desirable in the public interest that special priority be accorded. The commission

is then empowered by statute to initiate and carry out any studies and research of a legal nature as it deems necessary for the proper discharge of its functions, including studies and research relating to the laws, legal systems and institutions of other jurisdictions, whether in Canada or abroad.

The commission's program of activities has four major segments: substantive criminal law, criminal procedure, protection of life and administrative law. In addition, the commission prepares discrete reports on small but significant anomalies found in statutes.

## **20.2 Courts and the judiciary**

### **20.2.1 Administration of courts**

Responsibility for administration of courts is divided between federal and provincial levels of government by the revised constitution, which retains the applicable provisions of the British North America Act.

Section 92(14) gives each province exclusive powers over the administration of justice in that province. Under this authority provincial legislatures have established courts of appeal, supreme courts, county courts and provincial courts. The governments of Quebec and Nova Scotia have delegated some authority to their municipalities; hence these two provinces have municipal courts.

Section 101 allows Parliament to provide for the constitution, maintenance and organization of a general court of appeal for Canada, and for the establishment of any additional courts for the better administration of the laws of Canada. Under this authority the Supreme Court of Canada, the Federal Court of Canada, and the Court Martial Appeal Court of Canada, have been established (Chart 20.1).

Section 96 provides that the Governor General shall appoint the judges of superior, district, and county courts in each province, except those of the courts of probate in Nova Scotia and New Brunswick. Section 100 carries this one step further: the salaries, allowances and pensions of these judges are to be fixed and provided by Parliament.

Provincially constituted courts in each province can be divided into two groups: those whose judges are appointed and paid by the federal government, and those whose judges are appointed and paid by the province.

An appellate court is the superior court or the superior court division whose primary function is to review the decisions of other courts. In a



civil case, basically, the courts try to determine the relative rights of two opposing parties. In a criminal case a court is asked to decide the guilt or innocence of a person charged with an offence.

Expenditures on court operations are divided among the various levels of government. The federal government bears the costs of the Supreme Court, the Federal Court of Canada and the Tax Court of Canada. It also appoints and pays the salaries of provincial and territorial superior court judges. The provinces are responsible for all other expenses.

A breakdown of court operation expenditures by level of government in 1981-82 shows that provincial and territorial governments contributed \$326.8 million or 84.4% of the total, and the federal government provided the remaining \$60.4 million or 15.6%.

Expenditures varied by jurisdiction. For example, the lowest costs were recorded in Yukon (\$1.2 million) and Prince Edward Island (\$1.3 million), but Ontario had the highest (\$128.8 million) for 1981-82. Person-year expenditures among the jurisdictions ranged from a low of 25 in Yukon to a high of 4,168 in Quebec.

The national per capita cost in 1981-82 was \$17.52. Again, the figures varied by jurisdiction, ranging from about \$10 in Newfoundland and Prince Edward Island to about \$50 in Yukon and in Northwest Territories.

### 20.2.2 Administration of criminal prosecutions

Responsibility for the prosecution of criminal cases is also divided between the federal and provincial governments. The primary basis for the division is found in Section 2 of the Criminal Code. The Attorney General of a province is given responsibility for proceedings under the Criminal Code. The Attorney General of Canada is given responsibility for criminal proceedings in Northwest Territories and Yukon, and for proceedings under federal statutes other than the Criminal Code. Provincial statute and municipal bylaw prosecutions are the responsibility of the provincial Attorney General.

Prosecutions may be carried out by the police or by lawyers, depending on the practice of the Attorney General responsible. If prosecutions are carried out by lawyers, the Attorney General may rely on full-time staff lawyers, or may engage the services of a private practitioner for individual cases.

A breakdown of criminal prosecution expenditures by level of government in 1981-82 shows that 75% was paid by the provinces (excluding Alberta), 24% by the federal government and 1% by the territories.

Quebec, Ontario and British Columbia accounted for 79.7% of provincial/territorial criminal prosecution expenditures on a dollar basis and 78.6% on a person-year basis. A comparable proportion (an estimated 80.6%) of the national population (Alberta excluded) lives in these provinces.

Nationally (federal prosecutions included), the per capita cost of criminal prosecutions in 1981-82 was \$3.56. Per capita expenditures on provincial and territorial prosecution systems ranged from \$1.49 in Newfoundland to \$5.37 in British Columbia, \$12.73 in Yukon and \$14.86 in Northwest Territories.

### 20.2.3 Federal judiciary

**The Supreme Court of Canada** was created in 1875 by an act of Parliament, eight years after Confederation. Despite its creation, cases brought before it could still be further appealed to the judicial committee of the Privy Council in England. Appeals to this committee were abolished in criminal cases in 1933 and in all other cases in 1949, when the Supreme Court Act was amended to establish firmly the court's judicial independence as Canada's ultimate court of appeal.

The court was first composed of a Chief Justice and five puisne or associate judges. In 1927 the number of judges was increased to seven and in 1949, with the abolition of appeals to the judicial committee of the Privy Council, to nine, the current number. Of these, at least three are to be appointed from Quebec.

The Supreme Court is a general court of appeal for both criminal and civil cases. Its jurisdiction embraces the civil law of Quebec as well as the common law of the nine common law provinces. In most cases, appeals are heard by the court only if permission to appeal is first given. The court will grant such leave if it is of the opinion that a question of public importance is involved, or if there is an important issue of law that ought to be decided by the court. Leave to appeal may also be given by a provincial appellate court when one of its judgments is sought to be questioned in the Supreme Court of Canada.

The court will review cases coming from the 10 provincial courts of appeal and from the appeal division of the Federal Court of Canada. The court is also required to consider and advise on questions referred to it by the Governor-in-Council. It may also advise the Senate or the House of Commons on private bills referred to the court under any rules or orders of the Senate or of the House of Commons.



Chart 20.1

# Overview of the courts of Canada: Hierarchy, procedural flow and jurisdiction

Flow of cases  
▼

## Administrative Law

Hearings ■

Review ★

Appeals ◆

Note: cases flow inward  
(i.e. toward Supreme  
Court of Canada)

## Civil Law

□ Trials

◇ Appeals

Federally  
appointed  
judiciary/  
membership

Provincially  
appointed  
judiciary/  
membership

## Criminal Law

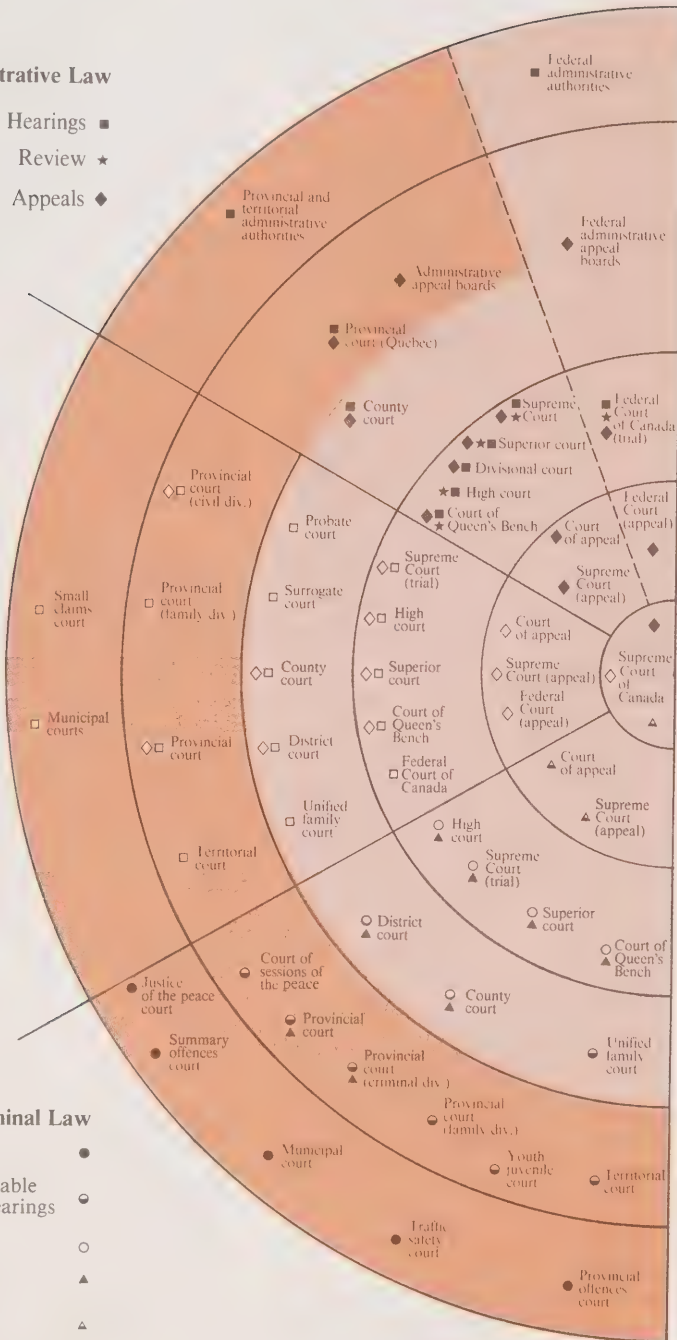
Summary trials ●

Summary and indictable  
trials/preliminary hearings ○

Indictable trials ○

Summary appeals ▲

Summary and  
indictable appeals ▲



The Supreme Court sits only in Ottawa and its sessions are open to the public. A quorum consists of five members, but the full court of nine sits in most cases; however, in a few cases, five are assigned to sit, and sometimes seven, when a member is ill or disqualifies himself. Since most of the cases have been screened through successful applications for leave to appeal, they involve, by and large, important questions of general concern that ought to be heard by the full court of nine. The main categories include constitutional, criminal and administrative law cases. Some cases may raise points of particular concern which do not need the attention of the full court. Unless by special leave of the court, the only persons who may appear before the court to argue, apart from litigants themselves, are lawyers from any Canadian province. The judgment of the Supreme Court of Canada in all cases is final and conclusive.

**Chief Justice and judges of the Supreme Court of Canada, as at April 16, 1987:**

Chief Justice of Canada, Rt. Hon. Mr. Justice Brian Dickson, PC (appointed April 18, 1984; first appointed a judge of the Supreme Court March 28, 1973)

Hon. Mr. Justice Joseph Philemon Jean Marie Beetz (appointed January 22, 1974)

Hon. Mr. Justice Willard Zebedee Estey (appointed September 29, 1977)

Hon. Mr. Justice William Rogers McIntyre (appointed January 1, 1979)

Hon. Mr. Justice Antonio Lamer (appointed March 28, 1980)

Hon. Madam Justice Bertha Wilson (appointed March 4, 1982)

Hon. Mr. Justice Gerald Eric Willoughby Le Dain (appointed May 29, 1984)

Hon. Mr. Justice Gerard V. La Forest (appointed January 16, 1985)

Hon. Madam Justice Claire L'Heureux-Dubé (appointed April 15, 1987).

**The Federal Court of Canada** came into existence in June 1971. It was constituted by an act of Parliament under Section 101 of the British North America Act (Constitution Act, 1867) which, after authorizing the creation of the Supreme Court of Canada, confers on Parliament the authority to constitute other courts for the better administration of the laws of Canada. According to the Federal Court Act (RSC 1970, c.10), the court was established as a court of law, equity and admiralty, and it is a superior court of record having both civil and criminal jurisdiction. The Federal Court replaced the Exchequer Court of Canada which had been in operation since 1875.

The court has two divisions, an appeal division and a trial division. The court of appeal consists of the Chief Justice and nine other judges. The trial division consists of the Associate Chief Justice and 13 other judges. Every judge is an ex officio member of the division of which he is not a regular member.

While all judges must live in or near the National Capital Region, each division of the court can sit any place in Canada. The place and time of the sittings must be arranged to suit the convenience of the litigants. There is authority in the statute for a rotation of judges to provide for continuity of judicial availability in any place where the volume of work, or other circumstances, makes such an arrangement expedient.

**Chief Justice and judges of the Federal Court of Canada, as of October 29, 1985:**

Chief Justice, Hon. Mr. Justice Arthur Louis Thurlow (appointed to appeal division June 1, 1971; appointed Associate Chief Justice December 4, 1975; appointed Chief Justice January 4, 1980)

Associate Chief Justice, Hon. Mr. Justice James Alexander Jerome (appointed February 18, 1980).

**Federal Court of Appeal:**

Hon. Mr. Justice Darrel Verner Heald (appointed to trial division July 9, 1971; appointed to appeal division December 4, 1975)

Hon. Mr. Justice James Knatchbull Hugessen (appointed July 18, 1983)

Hon. Mr. Justice Patrick Morgan Mahoney, PC (appointed to trial division September 13, 1973; appointed to appeal division July 18, 1983)

Hon. Mr. Justice Joseph Augustine Louis Marceau (appointed to trial division December 23, 1975; appointed to appeal division July 18, 1983)

Hon. Mr. Justice Louis Pratte (appointed to trial division June 10, 1971; appointed to appeal division January 25, 1973)

Hon. Mr. Justice Arthur Joseph Stone (appointed July 18, 1983)

Hon. Mr. Justice John J. Urie (appointed April 19, 1973)

Hon. Mr. Justice Mark MacGuigan (appointed June 29, 1984)

Hon. Mr. Justice Bertrand Lacombe (appointed October 29, 1985).

**Federal Court Trial Division:**

Hon. Mr. Justice Frank U. Collier (appointed September 16, 1971)

Hon. Mr. Justice Jean-Eudes Dubé, PC (appointed April 9, 1975)

Hon. Mr. Justice John C. McNair (appointed July 18, 1983)

Hon. Mr. Justice Francis C. Muldoon (appointed July 18, 1983)

Hon. Madam Justice Barbara Joan Reed (appointed November 17, 1983)

Hon. Mr. Justice Paul Rouleau (appointed August 5, 1982)

Hon. Mr. Justice Barry Louis Strayer (appointed July 18, 1983)

Hon. Mr. Justice George A. Addy (appointed September 17, 1973; became a supernumerary judge as of September 1, 1983)

Hon. Mr. Justice Pierre Denault (appointed June 29, 1984)

Hon. Mr. Justice L. Marcel Joyal (appointed June 29, 1984)

Hon. Mr. Justice Yvon Pinard (appointed June 29, 1984)

Hon. Mr. Justice Bud Cullen (appointed July 26, 1984)

Hon. Mr. Justice Leonard A. Martin (appointed October 29, 1985)

Hon. Mr. Justice Max M. Tietelbaum (appointed October 29, 1985).

#### 20.2.4 Provincial judiciary

Certain provisions of the constitution govern to some extent the provincial judiciary. Under Section 92(14) the legislature of each province exclusively may make laws in relation to the administration of justice in the province including the constitution, maintenance and organization of provincial courts of both civil and criminal jurisdiction. Section 96 provides that the Governor General shall appoint the judges of the superior, district and county courts in each province, except those of the courts of probate in Nova Scotia and New Brunswick.

#### 20.2.5 Territorial judiciary

In 1971 amendments now cited as RSC 1970, c.48 (1st supplement) to the Yukon Act and the Northwest Territories Act were proclaimed in force, simultaneously with certain ordinances of Yukon and Northwest Territories, allowing the territorial governments to assume responsibility for the administration of justice other than the conduct of criminal prosecutions.

**Yukon** created a court of appeal, a supreme court and a territorial court through territorial legislation in 1971. The court of appeal, as established by the Court of Appeal Act (RSYT 1971, c.C-20) consists of the resident justice of Yukon, plus a resident justice of Northwest Territories, the chief justice of British Columbia and nine judges of the court of appeal of British Columbia. The court sits primarily in Vancouver, but also has sittings in Whitehorse. The

supreme court, according to the Supreme Court Act (RSYT 1971, c.T-2) consists of the resident justice of Yukon, a resident justice of Northwest Territories, and when required, three judges from British Columbia and Alberta. It sits primarily in Whitehorse. The territorial court, as enabled by the Territorial Court Act (RSYT 1971, c.M-1), has two full-time judges and a pool of deputy judges on call, all appointed by the territorial commissioner. There are also 45 justices of the peace serving in 13 widely scattered circuit locations.

**Northwest Territories** has a court system consisting of a court of appeal, a supreme court and a territorial court. The court of appeal consists of the resident justice of Northwest Territories, the resident justice of Yukon, the chief justice of Alberta and 12 judges of the court of appeal of Alberta. It sits annually in Yellowknife and in Edmonton and Calgary, as required. The supreme court is presided over by two resident justices of Northwest Territories, the resident justice of Yukon, and when required, eight federally appointed judges from Alberta, plus three from Quebec and two from Ontario. It sits permanently in Yellowknife and goes on circuit to various locations as required. The territorial court consists of four territorially appointed judges; three sit permanently in Yellowknife and one in Hay River, as well as travelling on circuit. There are about 111 justices of the peace serving in various communities.

#### 20.2.6 Canadian Judicial Council

The Canadian Judicial Council, as established under amendments to the Judges Act, consists of the Chief Justice of Canada and the chief justices and associate chief justices of superior courts. The council's purpose is to promote efficiency and uniformity, and to improve the quality of judicial service in superior and county courts. It is assisted in these tasks by a county court committee composed of senior county court judges of the jurisdictions.

The council organizes conferences and educational seminars for federally appointed judges, acts as a focal point for discussion of issues of interest to the judiciary, and conducts investigations of allegations or complaints made in respect of a federally appointed judge.

#### 20.2.7 Office of the Commissioner for Federal Judicial Affairs

The Commissioner for Federal Judicial Affairs, under the Minister of Justice, is responsible for administrative matters pertaining to the Canadian



Judicial Council and all federally appointed judges excluding those of the Supreme Court of Canada. Specific duties include the administration of judges' salaries, allowances and annuities as provided for in the Judges Act, the preparation of budgetary submissions for the requirements of the office and the Canadian Judicial Council, and such other tasks associated with the proper functioning of the judicial system as may be assigned by the Minister of Justice. The position was established in 1978 under amendments to the Judges Act.

## 20.3 Legal services

### 20.3.1 The legal profession

Lawyers are part of the machinery of justice and are considered officers of the court. They represent parties appearing before the courts in both civil actions and criminal proceedings, and in these situations are often referred to as counsel. The initials QC after a lawyer's name mean Queen's Counsel, a title given by the government to lawyers in recognition of experience and competence.

Lawyers also assist and advise individuals, organizations and institutions (including governments) in all activities having a legal element. A lawyer appearing for a client in court is acting as a barrister and one engaged in other activities as a solicitor. These are English terms carried over from the way the legal profession developed and is still organized in England, where there is a clear division between the two. Every Canadian lawyer, however, is both a barrister and a solicitor, although some lawyers specialize in court or barrister work. Others, by far the greater number, devote themselves to the solicitor or office work of assisting and advising.

In Quebec the profession is divided between advocates (lawyers) and notaries. The advocate acts both as a barrister and solicitor. He may plead in court and also provide legal advice to his client. The notary may appear in court only on non-contentious matters such as adoption proceedings. He has the power to prepare certain documents, such as wills, deeds of sale of real property, and marriage contracts.

In all provinces, lawyers are organized in provincial law societies which control admission to the profession and discipline their members to maintain high standards. Before being admitted to practice, a potential lawyer must complete rigorous and lengthy education and training. This differs in detail from province to province but usually includes two years of university,

three years of law school, up to a year of apprenticeship called articling or clerkship under the supervision of a practicing lawyer, and some special practice courses supervised by the law society.

### 20.3.2 Department of Justice

**Criminal prosecutions.** The Department of Justice has regional offices at Halifax, Montreal, Toronto, Winnipeg, Saskatoon, Edmonton, Vancouver and Yellowknife. A Crown attorney's office is in Whitehorse and an Ottawa office (criminal prosecutions section) is staffed with full-time prosecutors.

The Ottawa office is composed of a headquarters division, an anti-trust division, an Ottawa region division and a Hull region division. To supplement regular staff, standing agents and ad hoc agents are employed to prosecute under particular statutes within a specified municipality or other territorial division and to prosecute specific cases. Personnel from the Ottawa office and other regional offices assist prosecutors in Yukon and Northwest Territories.

Directors of regional offices oversee federal criminal litigation and provide prosecution services in their geographic areas.

In provinces with federal Department of Justice offices the Crown is represented in indictable appeals by regular staff prosecutors. Where there is no such office, the agent who appeared at trial will represent the Crown on appeal.

In appeals to the Supreme Court of Canada, a member of the Ottawa office staff or the member of the office who handled the appeal in the prior court will represent the Attorney General of Canada.

### 20.3.3 Legal aid

Before its institutionalization in law and in federal-provincial cost-sharing schemes, legal aid was based on charity and differed from present-day services, not just in the amount of assistance but also in philosophy. Legal aid is now seen as a component of an effective judicial system rather than as a facet of social welfare.

All provinces and territories provide legal aid in criminal cases to eligible persons who might be imprisoned or lose their livelihood if convicted. Varying amounts of help are given for civil matters in all jurisdictions. Eligibility is established according to financial circumstances, the basic aim being to assist those who would be unable to retain counsel or would suffer serious hardship if they had to obtain legal services on their own.



**History.** Before the advent of organized legal aid, lawyers sometimes provided free legal services to people who could not pay, or they charged reduced fees depending on a client's financial circumstances. An early arrangement for providing legal help was to appoint a lawyer when an indigent person was charged with a serious crime. The appointment may have been made by a judge or on a judge's request, depending on the jurisdiction. The provincial or territorial department concerned with justice usually looked after the cost, at least for more serious and time-consuming cases, but the government did not always pay the lawyer who was appointed.

In the development of legal aid plans, there were basically three different patterns. In Newfoundland, Nova Scotia, Quebec, Manitoba and British Columbia, the provincial law society first developed legal aid clinics. The efforts of the law societies led in due course to the development of government funded legal aid. In Ontario and Alberta the law society and the provincial government went through a developmental period which culminated in the current plans in both provinces now mostly funded by the government. In Prince Edward Island and New Brunswick, the provincial governments introduced the present legal aid plans. Saskatchewan introduced at first a *judicare* plan, based on an agreement between the law society and the province and a few years later the present plan, which provides for legal services, as a rule, through salaried lawyers.

In Yukon and Northwest Territories, the federal Department of Justice administered a criminal legal aid plan for a number of years until 1971. At that time the administration of justice functions including the provision of legal aid were transferred to the territories.

**Agreements with the federal government.** The federal Department of Justice started cost sharing legal aid with respect to the criminal law in 1972. Quebec and British Columbia signed by December of that year, the four Atlantic provinces, Ontario, Manitoba and Alberta signed in 1973, and Saskatchewan in 1974.

The cost-sharing formula specified in the criminal legal aid agreement has traditionally set a maximum limit to the federal contribution.

The formula set out in the federal-provincial agreements and applied to each plan's net cost-shareable expenditures, determines federal contributions to criminal legal aid. Net cost-shared expenditure is the cost incurred by each legal aid plan on matters specified under the federal-

provincial cost-sharing agreement for criminal legal aid. It covers both legal service costs and associated administrative expenses, less all contributions and recoveries received from clients. Administrative expenses have been claimable since 1976-77.

The federal and provincial government agreement is subject to a number of conditions including eligibility of persons charged with offences, choice of lawyers, appeals to higher courts by the Crown, and fee schedules.

Civil coverage of legal aid matters was initiated in July 1980 with federal amendments to the Canada Assistance Plan Act, 1966-67. Under the auspices of Health and Welfare Canada, the federal and provincial governments agreed to cost share civil legal aid on a 50/50 basis. These agreements allow for retroactive payments of civil legal aid expenditure, subject to provincial social assistance legislation.

Cost sharing with the territories extends to both criminal and civil matters. Agreements were signed with Northwest Territories in 1971 and 1979 and with Yukon in 1977. With the territories, the formula calls for a 50% federal contribution, with specified maximums.

**Duty counsel.** Most jurisdictions have a duty counsel system to advise detained persons and persons appearing in court without counsel, to guide them in obtaining legal services, and to provide on-the-spot representation if needed.

Duty counsel is provided through private practice lawyers in New Brunswick, Alberta and the two territories, which have *judicare* type legal aid. It is furnished mainly by staff lawyers in Quebec, but by both private practice and staff lawyers in all other provinces with duty counsel service: Newfoundland, Ontario, Manitoba and British Columbia. Ontario is different in that duty counsel service is provided by staff lawyers in Toronto but by private practice lawyers elsewhere.

Lawyers who provide duty counsel services may be located in magistrate's (provincial), family and juvenile courts. In Yukon and Northwest Territories, duty counsel lawyers travel with the court.

Nova Scotia, Prince Edward Island and Saskatchewan do not have duty counsel systems, but lawyers working for the legal aid plans advise or represent accused persons if necessary.

**Legal aid services.** Legal aid services may consist of providing advice, representing clients in court proceedings, representing clients in administrative matters, drawing up legal documents, and negotiating settlements. The

extent of these services, especially in civil matters, differs by jurisdiction.

## 20.4 Law enforcement

### 20.4.1 Crime

Over the six-year period 1980-85, the number of offences increased 1.2% from 2,692,159 to 2,724,308.

Criminal Code offences, accounting for about three-quarters of all offences, grew by 6.3% between 1980 and 1985. They can be broken down into three categories: crimes of violence, property crimes and other criminal code offences. According to 1985 data, property crimes were about seven times as numerous as crimes of violence. Between 1980 and 1985 property crimes increased 5.6% and crimes of violence 21.8%.

Federal statute offences, which accounted for about 3.5% of total offences, declined by 19.8% between 1980 and 1985. Federal statute drug offences declined by 22.9% during the same time period.

**Criminal Code traffic statistics.** In 1985, impaired driving offences, which includes driving while impaired and failing or refusing to provide a

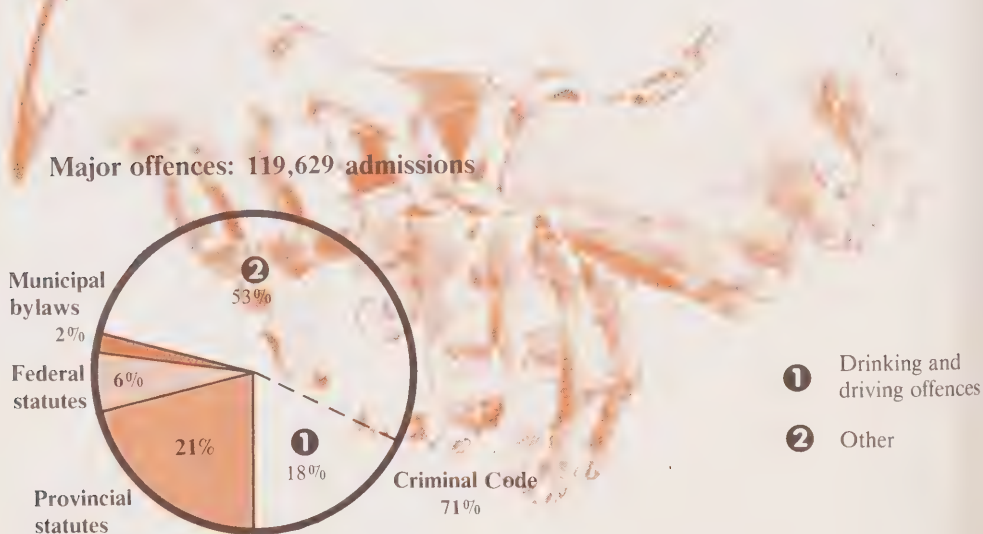
breath sample, accounted for 62% of the almost 250,000 Criminal Code traffic offences, while failing to stop or remain at the scene of an accident offences comprised an additional 35%. The remaining 3% were for criminal negligence, dangerous driving and driving while disqualified offences. Over the five-year period 1981-85, the number of Criminal Code traffic offences declined by 14%. Males accounted for 93% of persons charged with Criminal Code traffic offences in 1985. For additional information see Table 20.2.

### 20.4.2 Homicide

Homicide is a term used to designate the three Criminal Code offences of murder (prior to July 26, 1976, capital and non-capital murder), manslaughter and infanticide. In the 10-year period 1976-85, 6,633 persons were victims of homicide in Canada. This represents a yearly average of 663 deaths or an average annual rate of 2.8 homicide victims per 100,000 population. As murders account for an average of 90% of all homicide offences in any year, the murder and total homicide patterns from 1976 to 1985 are similar. Volatile yearly fluctuations in manslaughter offences and rates during this 10-year

Chart 20.2

**Sentenced admissions to provincial custody,<sup>(1)</sup> by major offence, 1985-86**



(1) Includes offenders who are subsequently admitted to federal custody after a 30-day appeal period.

period preclude the identification of any consistent trends. One manslaughter incident in 1980 culminated in the death of 48 victims and caused a dramatic rise in both the number of manslaughter offences and corresponding rate for that year.

#### 20.4.3 Police forces

**Organization of police forces.** Police forces of Canada are organized in three groups:

- (1) federal, the Royal Canadian Mounted Police;
- (2) provincial — Ontario and Quebec have their own police forces; the RCMP provide provincial policing services under contract to all the other provinces and the two territories. The Royal Newfoundland Constabulary shares provincial policing with the RCMP in Newfoundland. The New Brunswick Highway Patrol provides specialized traffic enforcement services to complement the provincial policing provided by the RCMP in New Brunswick; and
- (3) municipal police forces — most urban centres have their own police forces, or provincial police under contract, to attend to police matters.

In addition, the Canadian National Railways, the Canadian Pacific Railway Company and Ports Canada have their own police forces.

**The Royal Canadian Mounted Police (RCMP).** This is a civil force maintained by the federal government. It was established in 1873 as the North-West Mounted Police and was granted the prefix Royal by King Edward VII in 1904. Its sphere of operations was expanded in 1918 to include all of Canada west of Port Arthur and Fort William (now Thunder Bay). In 1920 it absorbed the Dominion Police, its headquarters was transferred from Regina to Ottawa and its title changed to Royal Canadian Mounted Police.

The force operates under authority of the Royal Canadian Mounted Police Act (RSC 1970, c.R-9). It is responsible to the Solicitor General and is controlled and managed by a Commissioner who holds the rank and status of a Deputy Minister and is empowered to appoint members to be peace officers in all provinces and territories.

Administration of justice in the provinces, including enforcement of the Criminal Code of Canada, is part of the power and duty delegated to the provincial governments. All provinces except Ontario and Quebec have contracts with the RCMP to provide criminal and provincial laws, under direction of the respective attorneys

general or solicitors general. In these eight provinces, the force provides police services to 191 municipalities, assuming enforcement responsibility of municipal as well as criminal and provincial laws. Yukon and Northwest Territories are policed exclusively by the RCMP, meaning that criminal offences, federal statutes and all ordinances of the territories fall within RCMP responsibility. The force maintains liaison officers in London, Paris, Bonn, Rome, Hong Kong, Washington, Sydney, Vienna, Buenos Aires, Brussels, Santiago, Bogota, New Delhi, Abidjan, Tel Aviv, Kingston, Tokyo, Nairobi, Beirut, Mexico City, The Hague, Lima, Manila, Stockholm, Berne, Bangkok and Port of Spain, and represents Canada in the International Criminal Police Organization with headquarters in Paris.

The force has 13 operational divisions across Canada: they comprise two districts and 48 subdivisions which include 716 detachments. The headquarters division, as well as the office of the commissioner, is in Ottawa. Divisional headquarters, for the most part, are located in provincial or territorial capitals.

A national police information centre at RCMP headquarters is staffed and operated by the force. Law enforcement agencies throughout Canada have access via remote terminals to information on stolen vehicles, licences, wanted persons and stolen property.

The RCMP operates the Canadian Police College at which force members and selected representatives of other Canadian and foreign forces may study crime prevention and detection.

As of December 31, 1985 the force had a total personnel strength of 19,629 including regular members, special constables, civilian members and public service employees.

**Ontario Provincial Police (OPP),** a Crown force, is the third largest deployed force in North America, with a strength of 4,345 (1985) uniformed and civilian personnel.

The force operates under the ministry of the Solicitor General for Ontario and is administered by a commissioner from general headquarters at Toronto. Operational and administrative responsibility is maintained by three deputy commissioners in the areas of field, investigations and administration. At the next level, chief superintendents administer seven divisions: field operations, field support, investigation, investigation support, personnel management, supply and planning, and technology.



The mandate of the force is set out under the Ontario Police Act (RSO 1980). The Ontario Provincial Police Force enforces federal and provincial statutes in areas not required to maintain their own police departments, maintains a traffic patrol on more than 22 000 km of highways and 993 000 km<sup>2</sup> of rural area, enforces the Liquor Licence Act for Ontario and maintains a criminal investigation branch and other branches to assist other forces to investigate major crimes.

The force has 187 detachments and 16 policing districts, each commanded by a superintendent. Contract policing services are provided to 13 municipalities. To police Indian reserves in Ontario, the force has 120 Indian reserve special constables employed on 58 Indian reserves.

**Quebec Police Force (QPF).** Under the authority of the Attorney General, the Quebec Police Force is responsible for maintaining peace, order and public safety throughout the province, and for prevention and investigation of criminal offences and violations of provincial law. The force is under the command of a director general assisted by five assistant directors general and a director of personnel and communications.

For police purposes, the province is divided into nine districts, each under the command of a chief inspector or an inspector, and named as follows: Bas St-Laurent, Saguenay - Lac St-Jean, Quebec, Mauricie, Estrie, Montreal, Outaouais, Nord-Ouest and Côte-Nord. Personnel of the force at the end of December 1985 was 5,298 uniformed and civilian employees.

**Municipal police forces.** Provincial legislation makes it mandatory for cities and towns to furnish adequate municipal policing for the maintenance of law and order in their communities. Also, all villages and townships or parts of townships having a population density and a real property assessment sufficient to warrant maintenance of a police force, and having been so designated by order-in-council, are responsible for policing their municipalities.

**Police strength.** Data for the five-year period 1980-85, showed a 1.0% increase in the number of full-time police officers in Canada, from 52,922 to 53,464. Municipal police forces (excluding RCMP and OPP contracts), which account for more than 55% of Canada's police strength, exhibited a 0.5% increase in the number of police officers over this period, rising from 29,493 in 1980 to 29,636 in 1985. Figures for the RCMP, who comprise over 26% of the national police strength, showed a 2.8% increase in the number of police officers, from 13,879 in 1980 to 14,271 in 1985. Similarly, the OPP

and the New Brunswick Highway Patrol experienced increases in police numbers during this period.

In contrast, the QPF, Ports Canada Police, Canadian National and Canadian Pacific Railway Police had decreases in police strength of 7.4%, 8.8%, 12.2% and 13.2%, respectively between 1980 and 1985.

## 20.5 Adult criminal court adjudications

Offences may be classified in three groups: indictable offences, summary conviction offences and dual procedure offences which allow the prosecutor to choose whether the prosecution will be by summary conviction or indictment. Indictable offences are grouped in two main categories: offences that violate the Criminal Code and offences against federal statute. Offences punishable on summary conviction — those not expressly made indictable — include offences against the Criminal Code, federal statutes, provincial statutes and municipal bylaws. Many summary conviction offences amount to mere disturbances of the peace, minor upsets to public safety, health and comfort such as parking violations, intoxication and practising trades without a licence. Nevertheless, summary conviction offences may include more serious charges such as assault.

There are two important differences between summary conviction and indictable offences. First, indictable offences are tried by a more complex and formal procedure than are summary conviction offences. Second, the maximum penalty which can be imposed in a summary conviction is a \$500 fine or six months imprisonment, or both. The Criminal Code provides that a magistrate's or provincial court has exclusive jurisdiction over summary conviction offences and certain named indictable offences. Other indictable offences require the accused person to elect whether he wishes to be tried by the magistrate or provincial court judge alone, a higher judge alone or a higher judge sitting with a jury.

More serious offences such as murder, rape or treason are the exclusive jurisdiction of a superior court and must be tried in a superior court, usually with a jury.

## 20.6 Youth courts — young offenders

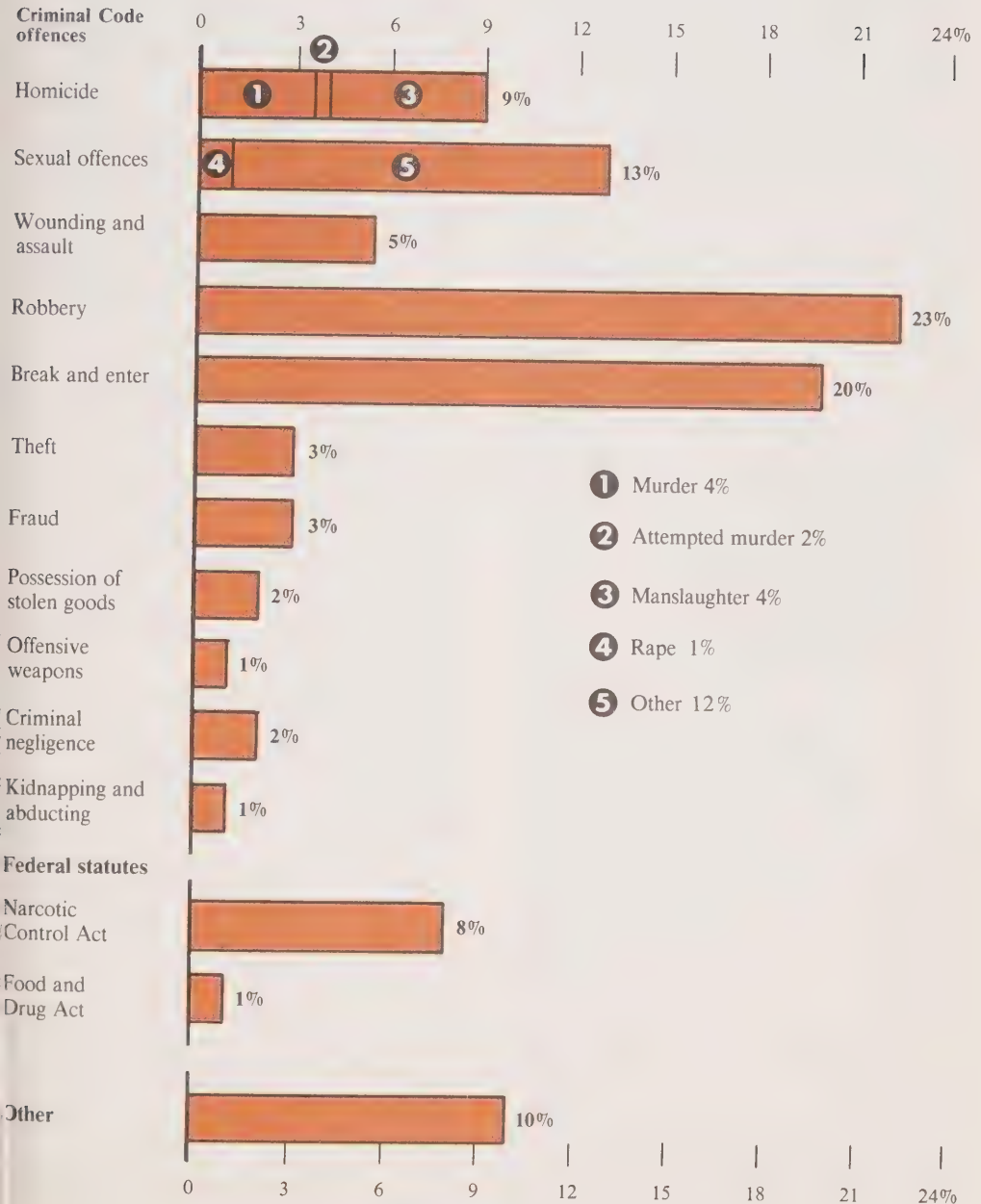
The Juvenile Delinquents Act (RSC 1970 c.J-3), enacted in 1908 to deal with children who were involved in criminal activities or who were generally delinquent, was repealed and replaced in



Chart 20.3

# Warrant of committal admissions to federal custody, by major offence, 1985-86

## Major offences: 4,076 admissions



1984 by the Young Offenders Act (RSC 1982 c.100). The Young Offenders Act presents a new direction, based on a different philosophy and a new set of principles for dealing with young persons who commit crimes.

The Young Offenders Act became operative in all provinces and territories on April 2, 1984. Under the terms of the Young Offenders Act, youth courts were given restricted jurisdiction to deal only with children who violated the Criminal Code and other federal statutes. Violations of provincial and municipal laws and 'status offences' such as sexual immorality were excluded from the jurisdiction of youth courts. At the same time, amendments were made to the Criminal Code to coincide with the Young Offenders Act.

With the implementation of this act, the minimum age for prosecution of young persons was raised to 12 and the maximum age was standardized at under 18 years across the country. For all provinces and territories, the minimum age was the first to be implemented April 2, 1984, followed by the maximum age April 1, 1985. Responsibility for dealing with children under 12 years rests with the provinces, to be incorporated as they see fit under some form of child or social welfare legislation. Applications to transfer young persons to ordinary court are made on the basis of the interests of the community first, while having regard to the needs of the young person.

The police are still responsible for initiating charges against young offenders under the Young Offenders Act. Police may use discretion for minor offences by warning and returning the young person to his/her parents rather than charging. In addition, formal screening of young offender cases prior to prosecution is occurring in some jurisdictions. Formal screening entails reviews by the Attorney General or representatives of the Attorney General (usually Crown Counsel) of young offender cases referred by the police for prosecution. A preliminary examination of young offender cases is made with regard to the sufficiency of evidence and the appropriateness of the cases for prosecution. Crown Counsel may decide to take no further action on the cases, refer the case for alternative measures or proceed with formal prosecution.

Alternative measures described in Section 4 of the Young Offenders Act have been instituted in some provinces as alternatives to formal judicial proceedings. From what is known of these programs, they are similar in content to

the diversion programs which operated under the Juvenile Delinquents Act; they are, however, more formalized, using entrance criteria, and, more importantly, the young offender must acknowledge responsibility for his/her criminal actions prior to participation in the program as well as be afforded certain legal rights while in the program.

Adjudications given by youth court judges under the Young Offenders Act are similar to those given under the Juvenile Delinquents Act. There is, however, not a general finding of delinquency, and there are no 'adjournments sine die'. Youth court judges may find young offenders 'guilty', 'not guilty', 'not guilty by reason of insanity' or 'unfit to stand trial'; or they may confirm a request by the Crown to 'stay proceedings', 'dismiss' or 'withdraw' the case, 'transfer the young offender to ordinary court' or 'transfer the young offender to another jurisdiction'.

Dispositions given under the Young Offenders Act must be for a definite period of time and youth court judges may decide upon one or a combination of dispositions which are not incompatible according to Section 20(1) of the act. These dispositions include: secure custody; open custody; detention for treatment; probation; maximum fine of \$1,000; compensation/compensation in kind/pay purchaser/restitution; community service order; prohibition/seizure/forfeiture; absolute discharge; and other ancillary conditions.

## 20.7 Correctional services

Responsibility for the provision of adult correctional services is shared among all federal, provincial, and in the case of Nova Scotia, municipal governments. As set out in the Criminal Code of Canada, the federal government is responsible for offenders sentenced to custody for two years or more, while provincial governments have authority over persons given a custodial sentence of two years less a day, or placed under other court orders.

Although there is a clear delineation in division of responsibility, provision is made for interchange among jurisdictions in exchange-of-service agreements. These are negotiated for such purposes as: transferring inmates across jurisdictions; accommodating parole suspensions; and providing for the efficient delivery of parole supervision, community assessment services, and health, psychiatric and educational services.

The federal Prisons and Reformatory Act defines the general administrative structures and responsibilities for operating custodial facilities. Each province or territory, although bound by general guidelines, has instituted its own set of legislative and regulatory guidelines for corrections.

The following government agencies are responsible for adult corrections in Canada:

**Federally.** Ministry of the Solicitor General; Correctional Service of Canada, National Parole Board.

**Provincially and territorially.** Newfoundland and Labrador, Department of Justice; Prince Edward Island, Department of Justice; Nova Scotia, Department of Attorney General; New Brunswick, Ministry of Justice; Quebec, Department of Justice; Ontario, Ministry of Correctional Services; Manitoba, Department of Community Services; Saskatchewan, Department of Justice; Alberta, Department of the Solicitor General; British Columbia, Ministry of the Attorney General; Yukon, Department of Justice; Northwest Territories, Department of Social Services.

### 20.7.1 Custodial services

Shared responsibility for custodial services spans across each of the municipal, provincial and federal levels of government. This three-tiered structure has been incorporated in divergent ways across Canada.

Although custodial sentences of two years less a day are under the authority of provincial government agencies, there may be exceptions. Federal offenders are normally held in the provincial system prior to transfer for a 30-day period of appeal. Additionally, with transfer agreements between the federal government and the provinces and territories, some federal offenders are detained in provincial facilities and vice versa.

The degree to which municipal and provincial governments share responsibility for temporary detainment is another source of variation. Some provinces assume no responsibility, others have partial responsibility, and still others have total responsibility.

Service structures also differ in the provision of custodial services through the private sector. Normally, sentenced inmates are transferred from a secure custodial environment to private facilities which usually allow for regular access to community resources. This has been the case in most jurisdictions. In recent years, private facilities have been integrated in some cases into

the government facility network with a resultant impact on the corresponding average inmate counts.

### 20.7.2 Non-custodial services

The need to further develop community correctional services has been brought to the forefront in recent years, particularly in light of the high costs and questionable benefits of the custodial response to certain offender groups.

Non-custodial programs provided in each provincial jurisdiction are not limited to probation. However, probation is the primary community-based disposition as a sentencing alternative to incarceration. In recent years, other non-custodial correctional programs have emerged to varying degrees, some of them available as conditions of probation orders.

Use of specialized programs aimed at specific target groups such as females, natives, and drinking and driving offenders has grown in recent years. So have compensatory sentences, for example, community service orders, fine options and restitution. Involvement of probation and parole officers in the supervision of temporary absence cases varies across the country. As a result, caseloads reported do not represent a definitive picture of the offender population under community supervision.

Due to increasing community supervision in caseloads, volunteer programs have been established in most jurisdictions. Combined with the fact that probation officers supervise juveniles in some provinces, it is difficult to arrive at an accurate and comparable measure of officer caseload.

**The National Parole Board** is an independent agency in the Department of the Solicitor General. It is an integral part of the Canadian criminal justice system in its daily operations and works together with other components of the system.

Under the federal Parole Act, the National Parole Board is primarily responsible for: granting full parole and day parole to both federal and provincial inmates; granting to federal inmates those temporary absences which cannot be authorized at the institutional level; and, terminating or revoking day paroles and revoking parole and mandatory supervision releases.

Since September 1, 1978, as a result of amendments to the Parole Act, it has been possible for any province to establish its own parole board. Three provinces, Quebec, Ontario and British Columbia, have exercised this right and have assumed responsibility for granting,



refusing and terminating parole for inmates serving definite sentences in provincial facilities. New Brunswick also operates a provincial parole board but only for the release of adult inmates pursuant to a provincial statute. All other provincial inmates remain the responsibility of the National Parole Board; however, provincial inmates must apply for parole under Section 8(1) of the Parole Act while federal inmates are considered automatically for parole at their parole eligibility dates.

### **20.7.3 Correctional expenditures, facilities and personnel**

Government spending on adult correctional services during 1985-86 amounted to about \$1.38 billion, including \$744 million federally (\$134 million in capital expenditures) and \$636 million provincially. This was an increase of \$23 million or 2% from the previous year's total of \$1.36 billion.

In 1985-86, over three-quarters of all corrections expenditures were for custodial services and the operation of the 232 institutions with 11% going to headquarters or regional offices and general administration, 9% to community supervision services and the remaining 2% for operation of federal and provincial parole boards. There were 465 probation and parole offices in Canada as of March 31, 1986. Staff salaries for 25,365 person-years in government correctional agencies accounted for 71% of the total expenditures. Correctional officers represented almost one-half, or 11,621 of the staff complement, and probation and parole officers 7%.

### **20.7.4 Offender caseload**

In 1985-86 there were on average 110,120 offenders in the Canadian corrections caseload, a 12% increase since 1981-82. The majority, 82,243 or 75%, were under some form of community supervision, while 27,877 or 25% were held in custody, showing little change in proportion over the five-year period.

The average provincial inmate population increased by 3% over the 1984-85 figure and 10% over the five-year period, reaching 16,663 in 1985-86; the average federal inmate population in 1985-86 was 11,214, an increase of 3% over 1984-85 and 26% over the five years. Besides, there were on average about 2,700 provincial inmates and 1,300 federal inmates who were on register but not in custody at the time of the count.

While 75% of persons in the total correctional caseload were under community supervision, about 9% of total correctional expenditures

were for the provision of these services in 1985-86.

### **20.7.5 Caseload characteristics**

Female offenders comprised 7% of all provincial sentenced admissions to custody, 3% of all federal warrant of committal admissions to custody, and 17% of all admissions to provincial probation. Inmates admitted to provincial custody are typically 27 years old and almost one-third of all admissions are for fine default; federal inmates have an average age of 30 years and are typically incarcerated for either robbery or break and enter. The median sentence length on admission to provincial facilities in 1985-86 was 30 days; the corresponding sentence length for inmates admitted to federal penitentiaries was 44.8 months. The average provincial probationer is 23 years of age and is serving a probation order of 11 months.

Of total sentenced admissions (119,629) to provincial facilities during 1985-86, 71% were admitted under a Criminal Code offence, including drinking and driving, 21% under a provincial statute, 2% under a municipal bylaw, and the remaining 6% under a federal statute, usually drug-related. Specifically, fine defaulters accounted for almost one-third of all admissions to provincial custody and drinking and driving offenders accounted for 18% of total sentenced admissions.

At the federal level, 46% of all warrant of committal admissions were for robbery, break and enter, and theft. Murder, attempted murder and manslaughter offences accounted for 9%, while sexual offences (including rape) accounted for 13%.

## **20.8 Victims of crime**

In recent years, criminal justice agencies and private sector groups have taken a number of initiatives for the victims of crime. Victims' services have been established across the country by both governments and private agencies. In 1981, a federal-provincial task force examined the needs of victims of crime and considered action which could be taken to improve methods of assistance to them. In 1982, the Solicitor General's department with the assistance of Statistics Canada conducted a victimization survey in seven major urban centres. This survey provides information on the victims of certain crimes, the risks and impact of victimization, the extent and distribution of reported and unreported crime, and public awareness of and participation in crime compensation and crime prevention programs.



### 20.8.1 Criminal injuries compensation

Criminal injuries compensation is related to two major areas of activity, the administration of justice and social security. From a justice perspective, it represents development in recent efforts to improve the criminal justice system by compensating innocent victims of crime. From a social security point of view, it forms part of a large network of programs to ensure Canadian residents of income security and necessary social services regardless of socioeconomic status.

In each province and territory except Prince Edward Island, there is a program to compensate for injury or death as a result of: some specified or defined crime committed by another person; an effort to prevent crime; or an effort to arrest an offender or suspected offender. Criminal injuries compensation legislation has been in effect in Newfoundland, Ontario, Saskatchewan and Alberta from the late 1960s, and in other provinces from the early 1970s. Yukon and Northwest Territories have had legislation from the mid-1970s. Nova Scotia also had legislation from that time, but it went into force in May 1981. The federal Department of Justice started sharing costs of criminal injuries compensation programs in 1973.

Administration of criminal injuries compensation programs differs from jurisdiction to jurisdiction. For example, while all programs cover compensation for certain offences specified in the federal-provincial cost-sharing agreement, such as homicide, assault and robbery, a jurisdiction may also compensate for other offences, such as abduction, and impaired or dangerous driving.

Compensation may be in lump-sum awards, periodic awards or a combination of both. There are variations in the maximum amounts payable. As a general rule, no compensation is paid for property damage. Table 20.11 shows the number of applications received, their disposition, and the amount of compensation paid.

## 20.9 Canadian Centre for Justice Statistics

The Canadian Centre for Justice Statistics is the focal point of a federal-provincial initiative dedicated to national statistics and information on the justice system in Canada. Established in Statistics Canada in 1981, the centre is responsible for producing information on the extent and nature of reported crime and the adminis-

tration of criminal, civil and administrative justice in Canada.

This information is designed to serve governments in the development, operation and evaluation of justice policies and programs, as well as to contribute to public understanding of how the justice system operates and of its cost. The centre also provides assistance to federal and provincial agencies in developing information systems that can serve both local and national needs.

Reflecting these two responsibilities, the centre has two main operational arms, one dedicated to the development and operation of statistical programs, the other designed to provide technical assistance to individual jurisdictions.

The centre operates under the responsibility and authority of Statistics Canada, but its programs and priorities are established in conjunction with federal, provincial and territorial departments and agencies responsible for the administration of justice, represented through a number of formal committees.

### 20.9.1 Statistics and information programs

The centre's statistical programs provide information on the number and nature of cases dealt with by each major sector of the justice system: law enforcement, legal aid, courts and correctional services, as well as on resources, expenditures and personnel in each sector. Descriptive information is available on the structure, legislative authority and programs of each sector.

Ongoing data collection programs provide time series information and in-depth studies to provide information on high priority national justice issues.

**Law enforcement.** This program produces statistics on criminal incidents reported to the police, how they are dealt with, and police administration in Canada. Information is provided by accredited police and other law enforcement agencies. In-depth information on homicide incidents is also produced, covering such areas as the characteristics of offenders and victims, and means of committing the offence.

**Legal aid.** This program produces statistical and descriptive information on such legal aid activities as the provision of legal advice, counsel representation, and other legal services in criminal and civil cases.

**Courts.** A courts program provides information on courts and court services. Data include information on court resources, expenditures and

personnel, and developmental projects to produce more detailed information on court cases. Descriptive information is compiled on civil and criminal courts and the administrative arrangements related to these courts.

**Correctional services.** A corrections program provides information on basic aspects of federal and provincial correctional services such as prisons, penitentiaries, probation and parole services. Statistics are available on expenditures and personnel of the corrections sector, as well as on the inmate, probation and parole populations.

**Juvenile justice.** This program is designed to produce information on the juvenile justice system in such areas as law enforcement, screening, alternative measures, pre-court, court and post-court processes. It currently produces information on young offenders dealt with by the courts.

#### **20.9.2 Technical assistance program**

The technical assistance directorate supports the development of statistical programs and the transfer of technology between jurisdictions,

helping them to develop operational information systems through technical expertise and resource support. The technical assistance program touches upon the major sectors of the justice system in the provinces, territories and the federal government.

**The federal-provincial partnership.** The centre operates on the principle that national justice information is a shared responsibility. A justice information council consists of all deputy ministers responsible for the administration of justice together with the Chief Statistician of Canada. Its main responsibility is to provide direction to and monitor the federal-provincial initiative, reviewing programs, priorities and progress.

A formal liaison officers committee represents justice information council members. Its primary task is to develop with the centre the specific programs and projects to be undertaken. Members are spokespersons for their jurisdictions. Program advisory committees also provide expert advice to the centre in the development of particular programs and projects.

#### **Source**

Canadian Centre for Justice Statistics, Statistics Canada. Co-ordinator, Dennis Conly.

.. not available  
 - not appropriate or not applicable  
 — nil or zero  
 -- too small to be expressed

e estimate  
 p preliminary  
 r revised  
 certain tables may not add due to rounding

## 20.1 Actual offences by type<sup>1</sup>, 1980-85

Type of offence	1980	1981	1982	1983	1984	1985	Percentage change 1980-85
Violent offences <sup>2</sup>							
Homicide	593	647	670	682	668	704	18.7
Attempted murder	792	900	943	880	922	862	8.8
Sexual offences	12,787	13,313	13,864	3	3	3	3
Rape	2,315	2,559	2,528	3	3	3	3
Other sexual offences	10,472	10,754	11,336	3	3	3	3
Assaults (not indecent)	117,111	121,076	125,912	3	3	3	3
Robbery	24,581	26,292	27,257	24,274	23,310	22,752	-7.4
Violent offences - total	155,864	162,228	168,646	172,315	179,397	189,822	21.8
Property offences							
Breaking and entering	349,694	367,250	369,882	362,376	356,912	356,744	2.0
Theft - motor vehicle	93,928	96,229	86,997	75,988	76,613	82,250	-12.4
Theft over \$200	224,595	266,288	295,261	292,973	304,556	308,969	37.6
Theft under \$200	539,490	561,827	570,556	548,229	523,485	512,928	-4.9
Have stolen goods	24,657	25,599	25,830	24,767	24,322	24,686	0.1
Frauds	102,255	112,327	118,397	118,370	122,775	123,140	20.4
Property offences - total	1,334,619	1,429,520	1,466,923	1,422,703	1,408,663	1,408,717	5.6
Other criminal code offences	554,916	576,453	568,099	553,615	559,637	575,636	3.7
Total criminal code offences	2,045,399	2,168,201	2,203,668	2,148,633	2,147,697	2,174,175	6.3
Federal statute offences							
Drug offences	74,196	75,104	64,636	54,847	54,950	57,205	-22.9
Other federal statutes	45,589	45,320	48,229	45,764	36,887	38,915	-14.6
Total federal statutes	119,785	120,424	112,865	100,611	91,837	96,120	-19.8
Total provincial statutes	452,812	481,232	434,351	408,939	378,656	359,559	-20.6
Total municipal bylaws	74,163	80,202	87,956	90,395	95,796	94,454	27.4
Total offences	2,692,159	2,850,059	2,838,840	2,748,578	2,713,986	2,724,308	1.2

<sup>1</sup> Based on uniform crime reporting.

<sup>2</sup> Updates to the homicide data occur within the homicide project but are not conducted in the uniform crime reporting project, therefore, totals for homicide may vary between these two projects. Homicide includes murder, manslaughter and infanticide.

<sup>3</sup> Breakdown of these offences is not available due to the proclamation of Bill C-127 in 1983.

## 20.2 Traffic enforcement statistics, by type of criminal code offence, 1981-85

Type of offence	1981	1982	1983	1984	1985	Percentage change 1981-85
Criminal negligence						
Causing death	300	261	205	215	231	-23.0
Causing bodily harm	223	250	231	218	285	27.8
Operating motor vehicle	1,179	1,062	1,035	920	935	-20.7
Fail to stop or remain at the scene of accident	96,856	91,422	76,280	80,738	85,708	-11.5
Dangerous driving	8,010	6,518	5,775	5,307	5,219	-34.8
Failure or refusal to provide sample of breath	17,405	17,512	17,954	17,700	16,044	-7.8
Driving while impaired	157,977	149,800	148,484	145,107	138,426	-12.4
Driving while disqualified <sup>1</sup>	5,999	465	309	271	216	...
Total	287,949	267,290	250,273	250,476	247,064	-14.2

<sup>1</sup> This offence was declared unconstitutional in 1981.

**20.3 Number and rate<sup>1</sup> of homicide offences<sup>2</sup> in Canada<sup>3</sup>, 1980-85**

Year	Number and rate	Murder	Man- slaughter	Infanticide	Total homicide offences
1980	Number Rate	493 2.05	97 0.41	3 0.01	593 2.47
1981	Number Rate	601 2.47	44 0.18	3 0.01	648 2.66
1982	Number Rate	622 2.52	42 0.17	4 0.02	668 2.71
1983	Number Rate	625 2.51	51 0.21	6 0.02	682 2.74
1984	Number Rate	621 2.47	41 0.16	5 0.02	667 2.63
1985	Number Rate	651 2.57	47 0.19	6 0.02	704 2.78

<sup>1</sup> Rates are calculated on the basis of 100,000 population.<sup>2</sup> One "offence" is counted for every victim.<sup>3</sup> The classifications of these homicide offences are based on police-reported data and do not reflect court dispositions.**20.4 Full-time police officers<sup>1</sup>, by type of force, 1980-85**

Type of force	1980	1981	1982	1983	1984	1985
Royal Canadian Mounted Police	13,879	14,267	14,115	13,984	13,958	14,271
Ontario Provincial Police	4,000	4,035	4,146	4,139	4,192	4,345
Quebec Police Force	4,585	4,571	4,518	4,450	4,398	4,248
Municipal Police (excl. RCMP and OPP contracts)	29,493	29,862	29,934	29,666	29,589	29,636
Canadian National Railways Police	427	422	402	376	376	375
Canadian Pacific Railways Police	334	311	312	307	315	290
Ports Canada Police	204	194	206	199	196	186
New Brunswick Highway Patrol <sup>2</sup>	...	27	30	56	78	113
Canada	52,922	53,689	53,663	53,177	53,102	53,464

<sup>1</sup> As at December 31 of each year.<sup>2</sup> The collection of New Brunswick Highway Patrol staffing information began in the 1981 reporting year.



## 20.5 Number of federal statute charges heard by courts under the Juvenile Delinquents Act and the Young Offenders Act, 1981-82 to 1985-86

Province or territory	Federal statute charges				
	Juvenile Delinquents Act <sup>1</sup>			Young Offenders Act <sup>2</sup>	
	1981-82	1982-83	1983-84	1984-85 <sup>P</sup>	1985-86 <sup>P</sup>
Newfoundland	2,836	2,276	2,997	2,023	3,033
Prince Edward Island	186	191	211	148	541
Nova Scotia	1,630	1,442	1,916	1,605	3,989
New Brunswick	1,565	1,366	1,380	1,008	2,346
Quebec <sup>3</sup>	26,888	27,290	28,375	22,621	24,326
Ontario	23,028	20,370	19,794	22,970	23,895
Manitoba	12,093	11,408	10,293	9,472	9,947
Saskatchewan	2,674	2,405	2,092	1,670	5,035
Alberta	8,877	8,818	8,636	9,214	18,860
British Columbia	12,887	12,324	13,293	11,989	15,386
Yukon	237	244	187	..	330
Northwest Territories	551	496	572	552	1,452
Total <sup>4</sup>	93,452	88,630	89,746	83,272	109,140

<sup>1</sup> All figures under the Juvenile Delinquents Act (JDA) exclude breach of probation and returns to court.

<sup>2</sup> All figures under the Young Offenders Act (YOA) exclude failure to comply and reviews.

<sup>3</sup> Quebec figures exclude charges laid against young persons under 14 years of age (144 charges in 1981-82; 227 charges 1982-83; 165 charges in 1983-84).

<sup>4</sup> In the JDA data, adults, persons of unknown ages and persons over the maximum legislated age for each jurisdiction are included. Similarly, in the YOA data, persons of unknown ages, persons under 12 and persons over the maximum legislated age for each jurisdiction are included.

## 20.6 Number of young persons appearing before courts under the Juvenile Delinquents Act and the Young Offenders Act, 1981-82 to 1985-86

Province or territory	Persons				
	Juvenile Delinquents Act <sup>1</sup>			Young Offenders Act <sup>2</sup>	
	1981-82	1982-83	1983-84	1984-85 <sup>P</sup>	1985-86 <sup>P</sup>
Newfoundland	1,893	1,243	1,621	1,017	1,403
Prince Edward Island	105	95	109	83	242
Nova Scotia	994	844	1,007	900	2,003
New Brunswick	835	753	784	564	1,082
Quebec <sup>3</sup>	5,979	5,875	5,908	5,188	5,894
Ontario	11,672	10,327	10,598	15,691	15,662
Manitoba	4,345	4,034	3,908	3,968	3,944
Saskatchewan	928	926	859	775	2,411
Alberta	4,105	4,010	4,376	4,785	8,251
British Columbia	..	..	5,270	4,568	5,769
Yukon	83	93	92	..	147
Northwest Territories	272	234	291	219	584
Total <sup>4</sup>	31,211	28,434	34,823	37,758	47,392

<sup>1</sup> See footnote 1, Table 20.5.

<sup>2</sup> See footnote 2, Table 20.5.

<sup>3</sup> Quebec figures exclude charges laid against young persons under 14 years of age (35 persons in 1981-82; 50 persons in 1982-83; 36 persons in 1983-84).

<sup>4</sup> See footnote 4, Table 20.5.

## 20.7 Cases heard by youth courts for federal statute offences, by disposition and sex, 1984-85<sup>P</sup>

Most significant disposition <sup>1</sup>		Nfld.	PEI	NS	NB	Que.	Man.	Sask.	Alta.	BC	NWT	Total
Secure custody	M	94	12	24	86	554	302	94	190	215	17	1,588
	F	5	—	1	4	12	18	5	23	29	—	97
	T	99	12	25	90	566	320	99	213	244	17	1,685
Detain for treatment	M	—	1	11	1	32	1	—	2	7	—	55
	F	—	—	1	—	2	1	—	—	1	—	5
	T	—	1	12	1	34	2	—	2	8	—	60

### 20.7 Cases heard by youth courts for federal statute offences, by disposition and sex, 1984-85<sup>P</sup> (concluded)

Most significant disposition <sup>1</sup>		Nfld.	PEI	NS	NB	Que.	Man.	Sask.	Alta.	BC	NWT	Total
Open custody	M	64	2	69	32	1,155	191	108	299	285	42	2,247
	F	9	—	12	—	40	5	15	34	15	6	136
	T	73	2	81	32	1,195	196	123	333	300	48	2,383
Probation	M	664	67	397	266	2,256	1,409	461	1,976	3,037	156	10,689
	F	76	2	63	21	115	207	107	435	539	25	1,590
	T	740	69	460	287	2,371	1,616	568	2,411	3,576	181	12,279
Fine	M	68	1	53	28	972	533	19	616	274	17	2,581
	F	7	—	21	7	70	39	3	292	49	1	489
	T	75	1	74	35	1,042	572	22	908	323	18	3,070
Compensation	M	10	—	6	—	13	17	—	33	18	1	98
	F	—	—	—	—	—	1	1	5	4	—	11
	T	10	—	6	—	13	18	1	38	22	1	109
Pay purchaser	M	—	—	—	—	25	—	—	—	1	—	26
	F	—	—	—	—	—	—	—	—	—	—	—
	T	—	—	—	—	25	—	—	—	1	—	26
Compensation (kind)	M	2	—	2	—	11	2	2	4	2	1	26
	F	—	—	—	—	—	—	—	—	—	—	—
	T	2	—	2	—	11	2	2	4	2	1	26
Community service order	M	7	1	29	20	365	258	11	404	76	21	1,192
	F	—	—	5	3	16	40	11	171	13	2	261
	T	7	1	34	23	381	298	22	575	89	23	1,453
Restitution	M	19	—	35	12	24	201	6	25	12	2	336
	F	1	—	—	—	1	31	2	2	3	—	40
	T	20	—	35	12	25	232	8	27	15	2	376
Prohibition seizure	M	2	—	—	8	3	8	—	1	—	—	22
	F	—	—	—	8	1	1	—	—	—	—	10
	T	2	—	—	16	4	9	—	1	—	—	32
Absolute discharge	M	86	5	57	39	179	220	20	375	136	4	1,121
	F	12	—	15	5	22	63	6	211	56	3	393
	T	98	5	72	44	201	283	26	586	192	7	1,514
Other <sup>2</sup>	M	38	1	39	55	139	80	6	43	36	4	441
	F	8	—	11	16	13	22	—	8	7	—	85
	T	46	1	50	71	152	102	6	51	43	4	526
Total cases with guilty findings <sup>3</sup>	M	1,054	90	722	547	5,728	3,222	727	3,968	4,099	265	20,422
	F	118	2	129	64	292	428	150	1,181	716	37	3,117
	T	1,172	92	851	611	6,020	3,650	877	5,149	4,815	302	23,539

<sup>1</sup> The most significant disposition for a case, whether for one charge or more than one, is that which has the greatest impact on the living situation of the young person.

<sup>2</sup> "Other" includes other dispositions such as essays, apologies or counselling programs.

<sup>3</sup> A case consists of one or more charges laid against a young person which were presented to the court at the same time and disposed of in the fiscal year specified. If the same young person reappears in court on a different date on a new set of charges, this will constitute another case.

### 20.8 Expenditures, facilities and personnel for provincial and federal corrections, fiscal year 1985-86

Jurisdiction	Expenditure (\$'000)	Number of facilities		Person-years expended
		Custodial	Non-custodial	
Provincial corrections	635,766	170	403	14,277
Federal corrections	744,472	62	62	11,088
Canada, total	1,380,238	232	465	25,365

### 20.9 Average offender caseload in Canadian corrections<sup>1</sup>, 1983-84 to 1985-86

Average actual caseload	Year	Provincial corrections	Federal corrections	Canada total
Custodial <sup>2</sup>	1983-84	17,157	10,438	27,595
	1984-85	16,242	10,857	27,099
	1985-86	16,663	11,214	27,877
Non-custodial <sup>3</sup>	1983-84	77,159	7,269	84,428
	1984-85	70,972	7,247	78,219
	1985-86	74,926	7,317	82,243
Total	1983-84	94,316	17,707	112,023
	1984-85	87,214	18,104	105,318
	1985-86	91,589	18,531	110,120

<sup>1</sup> Includes the offender caseload handled by both the federal and provincial governments combined but excludes offenders in municipally operated corrections.

<sup>2</sup> Refers to actual count and therefore excludes inmates temporarily not in custody at the time of count. In 1985-86 approximately 2,700 provincial and 1,300 federal inmates fell into this category.

<sup>3</sup> Figures for the federal non-custodial population include full parole, day parole and mandatory supervision counts.

### 20.10 Caseload characteristics, provincial and federal corrections, fiscal year 1985-86

Jurisdiction	Sentenced admissions				
	Total number	Female %	Male %	Median age <sup>1</sup>	Median sentence
Provincial corrections					
Custodial	119,629	7	93	27 yrs	30 days
Probation	72,249	17	83	23 yrs	11 months
Federal corrections <sup>2</sup>	4,076	3	97	30 yrs	44.8 months
Canadian adult population <sup>3</sup>	18,757,300	51	49	38 yrs	...

<sup>1</sup> The age reported here for federal corrections is "average age".

<sup>2</sup> Excludes releases to parole and mandatory supervision.

<sup>3</sup> Based on postcensal estimates in June 1985.

### 20.11 Applications, dispositions and payments for criminal injuries compensation, by province, 1984-85 and totals, 1975-76 to 1984-85

Province or territory	Applications received	Disposition		Compensation paid <sup>1</sup> (\$'000)
		Dismissed	Awards granted	
1984-85				
Newfoundland	9	—	7	37.3
Nova Scotia	99	17	13	181.7
New Brunswick	60	11	69	82.1
Quebec	1,480	285	940	11,972.0
Ontario	1,697	67	1,086	3,222.7
Manitoba	236	29	197	1,123.4
Saskatchewan	176	52	101	347.9
Alberta	330	17	484	963.6
British Columbia	1,193	192	833	3,233.6
Yukon	2	1	1	6.2
Northwest Territories	10	—	3	27.9

## 20.11 Applications, dispositions and payments for criminal injuries compensation, by province, 1984-85 and totals, 1975-76 to 1984-85 (concluded)

Province or territory	Applications received	Disposition		Compensation paid <sup>1</sup> (\$'000)
		Dismissed	Awards granted	
Canada				
1975-76 <sup>2,3,4</sup>	2,258	353	1,829	4,412.1
1976-77 <sup>4</sup>	2,602	349	2,454	6,221.6
1977-78 <sup>4</sup>	2,914	340	2,392	6,560.2
1978-79 <sup>4</sup>	3,210	351	2,641 <sup>5</sup>	7,258.2
1979-80 <sup>4</sup>	3,385	410	2,805 <sup>5</sup>	9,201.1
1980-81 <sup>4</sup>	3,860	711	2,959	12,032.9
1981-82 <sup>4</sup>	4,496	787	3,041	14,524.0
1982-83	4,981	838	3,163	18,572.8
1983-84	4,657	759	3,936	19,710.7
1984-85	5,292	672	3,734	21,198.5

<sup>1</sup> Amounts shown for compensation may include periodic payments related to cases closed in previous years.

<sup>2</sup> For Alberta, January-March 1976; no federal-provincial cost-sharing agreement existed for earlier periods.

<sup>3</sup> No claims were received from Yukon for 1975-76.

<sup>4</sup> Up to 1980-81, exclusive of Prince Edward Island and Nova Scotia, for which jurisdictions no federal-provincial cost-sharing arrangements existed; for the latest year, exclusive of Prince Edward Island, which is now the only jurisdiction without a criminal injuries compensation program.

<sup>5</sup> Includes estimated component.

Note: Applications dismissed and awards granted do not equal applications received. Applications received are not necessarily processed in the same year, and cases dismissed or compensated may relate to applications of earlier years. Only three of the more significant disposition categories are shown. Some others are: applications heard - further evidence required, interim awards and supplementary awards.

### Sources

- 20.1 Extracted from annual issues of *Canadian Crime Statistics*, Statistics Canada 85-205, CCJS.
- 20.2 *Juristat*, Vol. 6, No. 3, Statistics Canada 85-002, CCJS, September 1986.
- 20.3 Extracted from annual homicide publications, Statistics Canada 85-209, CCJS.
- 20.4 *Juristat*, Vol. 6, No. 2, Statistics Canada, CCJS, September 1986.
- 20.5 - 20.7 Juvenile justice program, CCJS.
- 20.8 - 20.10 *Adult correctional services in Canada* 1982-83, Statistics Canada 85-211, CCJS.
- 20.11 *Criminal injuries compensation* 1983, Statistics Canada 86-502, CCJS.



CHAPTER 21

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# EXTERNAL RELATIONS, TRADE AND DEFENCE

## CHAPTER 21

# EXTERNAL RELATIONS, TRADE AND DEFENCE

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## THEN



"... The increase of the trade within the last two years was about the same volume as the total trade in 1850. It is, however, since the era of Confederation that the most rapid increase of trade has taken place. Confederation has given a more rapid stimulus to industry of all kinds than its most sanguine advocates predicted." (1874)

"The amount of trade done by the United States is ... many times larger than the trade of Canada, though in proportion to population the trade of the Dominion is considerably in advance of that

of the United States." In 1891, the total per capita trade amount in Canada was \$45.09, and in the United States, \$27.54. (1891)

"Before the outbreak of the war, the Canadian Militia consisted of a Permanent Force, which on March 31, 1914, numbered 3,000 officers, non-commissioned officers and men ... When hostilities ceased on November 11, 1918, there had been sent overseas for active service in the Canadian Expeditionary Force about 418,000 officers, non-commissioned officers and men." (1918)

## WILLIAM ATKINSON,

### Spanish Fruit Merchant,

Consignments of Oranges, Lemons, &c., received by every Mail Steamer from England.

Also Sole Agents for Cantrell & Cochrane's Belfast Ginger Ale, &c.

*Cronan's Wharf, Halifax, N. S.*

## NOW

In 1985 Canada had 118 diplomatic and consular missions (plus 37 honorary consulates) in 124 countries. One hundred and one countries have diplomatic missions in Ottawa and another 45 states have non-resident accreditation.

In 1985, a total of 72,810 immigrants and 207,302 visitors were issued visas overseas.

In 1986, the value of Canada's trade imports increased 7.5%, following increases of 12.3% in 1985 and 25.2% in 1984.

In 1985, the Canadian International Development Agency supported 6,201 Third World students and trainees - 3,342 studying in Canada, 401 in their own country, and 2,488 in a third country. Of the total, about 23% were women.

Canada has long been one of the world's major suppliers of food aid. In 1985-86, Canada contributed \$248 million - nearly \$1 million a day - in food, transport costs, and cash - making Canadians, on a per capita basis, the world's leading donors of food aid.



## CHAPTER 21

# EXTERNAL RELATIONS, TRADE AND DEFENCE

### 21.1 Canada's external operations

In the 1980s, considerable changes have occurred in the conduct of Canada's external relations. In April 1981, the responsibility for immigration programs abroad was transferred to the Department of External Affairs, together with the foreign service staff of the Canadian Employment and Immigration Commission. These programs include the recruitment of immigrants, the admission of refugees and the entry into Canada of tourists, students and temporary workers. Similarly, the field staff of the Canadian International Development Agency (CIDA) was brought into the department.

In January 1982, the federal government effected a major reorganization of its economic and external affairs departments, moving the international trade policy and trade promotion functions of the former Department of Industry, Trade and Commerce to External Affairs.

As a result of these changes, the mandate and responsibilities of External Affairs have been expanded to incorporate the full spectrum of Canada's international relations, including foreign policy, trade, immigration and aid. In addition, the department provides administrative support to the foreign operations of other departments, and represents the international interests of other departments which are without operations abroad.

In the past several years, the department has undergone several organizational adjustments aimed at integrating more closely the political, economic and trade functions of the department, and streamlining the delivery of programs abroad.

In January 1986, various units of the department performing intelligence functions were reorganized into a new foreign intelligence bureau. The bureau is responsible for providing the department and the government with political and economic intelligence relating to the capabilities, intentions or activities of foreign states and persons.

### 21.2 Canada's international status

The growth of Canada's international status is reflected in the development of the Department of External Affairs since its establishment in 1909. Until the 20th century Canadian negotiations with foreign countries were conducted through the British foreign office and dealings with other parts of the Empire through a colonial office. The gradual recognition of Canadian autonomy in international affairs and increased Canadian responsibilities abroad made expansion of services and representation after World War I inevitable and necessary. An important step in the evolution of Canada's international status was an agreement reached at the 1926 Imperial Conference allowing for Canadian sovereignty in international negotiations and affairs.

In the 1920s and 1930s, Canada established its own diplomatic relations with several countries, including the United States, France and Japan. In 1985, there were 118 diplomatic and consular missions (plus 37 honorary consulates) in 124 countries; many Canadian embassies and high commissions are accredited to two or more governments, thus permitting Canada to maintain diplomatic relations with 68 additional countries. One hundred and one countries have diplomatic missions in Ottawa and another 45 states have non-resident accreditation.

Membership in international organizations has entailed establishment of permanent Canadian delegations to the United Nations in New York and at the organization's European headquarters in Geneva. There are also permanent Canadian missions to UN agencies in Paris; the Mutual and Balanced Force Reduction Talks, Vienna; the North Atlantic Treaty Organization, Brussels; the Organization for Economic Co-operation and Development, the International Energy Agency, and the United Nations Educational, Scientific and Cultural Organization, Paris; and the European Community, Brussels. Canada also maintains a permanent observer

mission to the Organization of American States in Washington, DC. In addition, officials of the Department of External Affairs represent Canada at many international conferences, such as the Review Conference on Security and Co-operation in Europe which began in Vienna in November 1986.

Today, Canada's status is reflected in its role in international negotiations over such vital issues as human rights, the North-South dialogue, disarmament, law of the sea, energy management and nuclear non-proliferation.

**Federal-provincial aspects.** A federal-provincial co-ordination division in External Affairs Canada maintains liaison with the provinces to facilitate their necessary international activities in a manner that meets provincial objectives and preserves the coherence of Canadian foreign policy. The federal government's foreign policy includes recognition of legitimate provincial interests beyond national borders and continued promotion of national unity through adequate international projection of Canada's bilingual character.

Provincial participation at international conferences and in the work of international organizations is provided for by including provincial officials on Canadian delegations and by canvassing provincial governments for their views on positions and attitudes that Canada adopts on subjects treated by these organizations. These include areas of particular interest to the provinces such as human and civil rights, education, culture, health, agriculture, labour and environment.

Other international interests of the provinces include promotion of trade, investment, industrial development, immigration, tourism, cultural exchanges, environmental questions, science and technology, bilateral and multilateral agreements, and assistance to developing countries. In matters of aid, the federal government encourages a detailed federal-provincial consultation to ensure that specific projects are co-ordinated. Promotional activities of the provinces and their interests in international activities have led to an increased number of provincial offices and visits abroad.

**Treaty-making powers.** The federal government has exclusive responsibility for Canada's external affairs. There are frequent consultations between federal and provincial governments regarding treaties of provincial interest and responsibility.

Once it has been determined that what a province seeks through understandings, in fields of

provincial jurisdiction, meets with Canadian foreign policy, provision is often made for direct provincial participation in negotiating with the authorities of the foreign country. International agreements having legal effect at public international law, however, can be achieved only through the federal power to conclude treaties.

**Foreign operations.** The Department of External Affairs Canada receives and analyzes diplomatic and consular reports and statistics; negotiates consular conventions and multilateral and bilateral agreements; monitors legislative developments which affect the status of Canadian citizens abroad; provides a link with other government services such as immigration, refugee matters and citizenship; trains foreign service personnel; provides instructions to posts abroad; recommends appointments of honorary consuls; evaluates services provided; manages Canada's immigration program abroad; and co-ordinates external aspects of immigration policies and programs.

**Trade services.** External Affairs Canada is responsible for maintaining and furthering an international trading climate favourable to Canadian exporters and other economic interests and for policies and programs to safeguard and advance Canada's international trading interests. As the primary federal government contact with foreign governments and international organizations which influence trade, it consults with such governments and organizations and works closely with other federal government departments, Crown corporations and agencies, the provinces, and business and academic communities to achieve these objectives.

The trade commissioner service became part of External Affairs Canada in 1982, with 91 offices in 67 countries either directly in embassies and high commissions or in separate premises. Its primary role is to promote Canada's export trade and to protect Canada's commercial interests abroad.

External affairs also administers the policies of Tourism Canada abroad and provides advice on questions about consular activities.

**Consular and immigration affairs.** While the Employment and Immigration Commission has overall responsibility for formulation of Canada's immigration program, the responsibility for the delivery of the overseas component of this program rests with External Affairs. Visa officers are located at 64 Canadian missions to select and counsel both potential immigrants and those seeking temporary entry

to study, to work or to visit Canada. In 1985, a total of 72,810 immigrants and 297,302 visitors were issued visas overseas.

Another responsibility of visa officers is to maintain links with host government officials in order to provide Canadian federal government agencies with a variety of information on social affairs topics such as labour market developments, youth employment, affirmative action, women's issues and social welfare programs as well as the immigration and refugee policies of their countries of accreditation.

Large numbers of Canadians travel and reside in other countries. Through its diplomatic and consular missions, the department serves their needs for passports, citizenship documents and notarial services, and gives advice and assistance on a wide range of Canadian and foreign matters. It also helps Canadians who find themselves in distress while abroad, whether through loss of money and travel documents, arrest and imprisonment, illness or death, civil disturbances, natural disasters, or other troubles.

**Passport services.** Passports are issued to Canadian citizens through the main passport office in Ottawa and through regional offices in St. John's, Halifax, Fredericton, Montreal, Quebec City, Toronto downtown and Toronto North York, Hamilton, London, Windsor, Winnipeg, Saskatoon, Calgary, Edmonton, Vancouver and Victoria. Abroad, the service is provided through Canadian diplomatic and consular posts. Certificates of identity are issued in Canada to eligible legally landed non-Canadians. United Nations refugee travel documents are issued in Canada to persons eligible under the UN refugee convention.

## 21.3 Multilateral activities

### 21.3.1 Canada and the Commonwealth

The Commonwealth has evolved into an international association of 49 sovereign nations embracing approximately one-quarter of the earth's surface and one billion of its people, who are diverse in race, colour, creed and language. Comprising both developed and developing countries, the Commonwealth represents a unique association whose members share many of the same traditions, political and social values, attitudes and institutions. All members collectively subscribe to certain common ideals known as the Declaration of Commonwealth Principles. Commonwealth membership is not an alternative, but a complement to other forms of international co-operation — its members

believe in and work for the success of the United Nations. As well, most of them belong to other international organizations and to regional associations of states.

Membership in the Commonwealth and pursuit of its work and goals are an important aspect of foreign policy. Canadian objectives have remained constant: to strengthen the association and its contributions to international peace and progress, and to assist its development as a vehicle for practical co-operation. In 1986, apartheid in South Africa dominated Commonwealth affairs. The organization has no binding rules; decisions are by consensus rather than formal vote.

A Commonwealth secretariat in London organizes and services official Commonwealth conferences, facilitates exchanges of information between member countries and brings together their views. Canada pays its share of the budget of the secretariat and contributes to many other Commonwealth institutions and programs: a Commonwealth fund for technical co-operation, a Commonwealth youth program, a Commonwealth foundation, a Commonwealth scholarship and fellowship plan and the Commonwealth Games.

Canada is scheduled to host a meeting of the Commonwealth in October 1987 — the first occasion for a Commonwealth conference to be held in Canada since 1973.

### 21.3.2 Canada and "la Francophonie"

Unlike the Commonwealth, "la Francophonie" is not an institutional grouping of countries. The term encompasses a community of countries sharing in various measures the French language and culture, an assembly of heads of state and government, inter-governmental institutions and private organizations.

The federal government represents Canada in these forums, and special participating government status is enjoyed by the provinces of Quebec and New Brunswick within the Agency for Cultural and Technical Co-operation, the main international francophone organization. With the provinces, Canada also participates in two major francophone ministerial conferences, the conference of ministers of youth and sports, and the conference of ministers of national education. Quebec and New Brunswick are also represented by their Premiers at the meetings of heads of state and government, using French as a common language. The first such meeting took place in Paris in February 1986, and the next is scheduled to be held in Quebec in 1987. Within the context of "la Francophonie",



Chart 21.1

**Commonwealth countries****1931**

Australia  
Canada  
New Zealand  
Britain

**1947**

India

**1948**

Sri Lanka

**1957**

Ghana  
Malaysia

**1960**

Nigeria

**1961**

Cyprus  
Sierra Leone  
Tanzania

**1962**

Jamaica  
Trinidad and  
Tobago  
Uganda

**1963**

Kenya

**1964**

Malawi  
Malta  
Zambia

**1965**

The Gambia  
Singapore

**1966**

Barbados  
Botswana  
Lesotho

**1968**

Mauritius  
Nauru  
Swaziland

**1970**

Fiji  
Tonga

**1972**

Bangladesh

**1973**

The Bahamas

**1974**

Grenada

**1975**

Papua New  
Guinea

**1976**

Guyana  
Seychelles

**1978**

Dominica  
Solomon  
Islands  
Tuvalu

**1979**

Kiribati  
St. Lucia  
St. Vincent  
Western  
Samoa

**1980**

Vanuatu  
Zimbabwe

**1981**

Belize  
Antigua and  
Barbuda

**1982**

Maldives

**1983**

St. Kitts-  
Nevis

**1984**

Brunei



Chart 21.2

**La Francophonie****MEMBER COUNTRIES**

Belgium  
Benin  
Burundi  
Canada  
Central African Republic  
Comoro Islands  
Congo  
Ivory Coast  
Djibouti  
Dominica  
France  
Gabon  
Guinea  
Haiti  
Upper Volta  
Lebanon  
Luxembourg  
Mali  
Mauritius  
Monaco  
Niger  
Rwanda  
Senegal  
Seychelles  
Chad  
Togo  
Tunisia  
Vanuatu  
Vietnam  
Zaire

**ASSOCIATE COUNTRIES**

Cameroon  
Egypt  
Guinea-Bissau  
Laos  
Morocco  
Mauritania  
St. Lucia

**PARTICIPATING  
GOVERNMENTS**

New Brunswick  
Quebec

various non-governmental professional associations work toward forming closer relations among their members and furthering the interests of francophone countries, especially in the Third World. The first summit of heads of state and government of countries using French as a common language gave the international francophone community a real instrument of co-operation and interchange in the political, economic and co-operative fields. In this manner "la Francophonie", like the Commonwealth, is becoming a rallying point around which solutions to the major international problems may be sought. It provides Canada with an excellent framework for co-operation and dialogue with the industrialized countries, and with some of the poorest among the developing countries.

Belonging to "la Francophonie" is an excellent means of promoting the French fact in Canada by giving it an international dimension, and of strengthening Canadian unity by way of involving those provinces which have recognized French as an official language with the federal government.

### 21.3.3 Canada and the OECD

The Organization for Economic Co-operation and Development (OECD) was established in Paris in September 1961. It succeeded the Organization for European Economic Co-operation (OEEC) founded in 1948 by the countries of Western Europe to facilitate reconstruction of their war-shattered economies and to administer the Marshall Plan. In the OECD, Canada and the United States and later Japan, Australia and New Zealand joined with countries of Western Europe to form a major intergovernmental forum for consultation and co-operation among the industrialized nations.

The aim of the OECD is to facilitate the formulation of policy conducive to stability, balanced economic growth and social progress of both member and non-member countries. Over past years, the OECD has broadened its activities to include almost every aspect of economic and social policy in modern society.

The International Energy Agency (IEA), established within the framework of the OECD in 1974, plays a role in four main areas: emergency oil sharing, consultations on the oil market, promotion of the accelerated development of new sources of energy, and relations between oil-consuming and oil-producing countries. Another agency of the OECD, the Nuclear Energy Agency founded in 1972, has been involved in the co-ordination and exchange of views of the technical aspects of nuclear power.

The OECD brings together government officials and representatives of business, labour, universities and other non-governmental sectors at the international level.

### 21.3.4 Canada and the United Nations

Since the inception of the United Nations, support for the UN system has been an integral part of Canadian foreign policy. Canada has played a significant role in the General Assembly, the Security Council and a number of its special committees. In 1986, the General Assembly had 158 members.

On the occasions when military personnel have been dispatched under the UN flag to deal with threats to peace and security, Canada has participated in providing personnel and equipment.

Canada has also served at regular intervals on the third principal organ of the UN, the Economic and Social Council. Generally, two sessions of the Council are held annually, one in New York, in the spring, to discuss social and humanitarian questions, and one in Geneva, in mid-summer, to examine economic questions including food problems and international co-operation.

In recent years, the UN has devoted more time to human rights, and new declarations, conventions and covenants have been promulgated. Canada has encouraged the preparation of such instruments and has stressed building better mechanisms for enforcement of standards.

Canada is among the major contributors to the UN budget. In terms of the overall UN system, including both voluntary and assessed contributions, Canada, in 1986, was the fourth largest contributor. Canada makes voluntary contributions to the United Nations development program, the United Nations high commission for refugees, the United Nations children's fund, the United Nations relief and works agency for Palestine refugees, the world food program, the United Nations institute for training and research, the United Nations educational and training program for southern Africa, the United Nations fund for population activities, the committee on racial discrimination, the trust fund for South Africa and the fund for drug abuse control. The United Nations development program is one of the largest of these, and has a team leadership function in co-ordinating development activities in the UN system.

**Canada and disarmament.** Canada is an active participant in the principal multilateral disarmament forums: the United Nations first committee, the conference on disarmament in Geneva and the mutual and balanced force reduction talks in

Vienna. Canada also took part in the Stockholm conference on confidence- and security-building measures and disarmament in Europe that concluded in September 1986 with a consensus document containing a set of confidence-building measures in relation to certain kinds of military activity in Europe. Canadian arms control objectives are also pursued through bilateral consultations with countries from East, West and the neutral and non-aligned states that are active in arms control and disarmament affairs. Canada is fully supportive of the objectives of the bilateral US/USSR negotiations on nuclear and space arms in Geneva and is encouraging both parties to come to an early agreement in these negotiations.

Canadian priorities in the arms control and disarmament field are: negotiated radical reductions in nuclear forces and the enhancement of strategic stability; maintenance and strengthening of the nuclear non-proliferation regime; negotiation of a global chemical weapons ban; support for a comprehensive test ban treaty; prevention of an arms race in outer space; and the building of confidence sufficient to facilitate the reduction of military forces in Europe and elsewhere.

Canada makes a significant practical contribution to arms control and disarmament by encouraging compliance with existing treaties; developing mechanisms to verify compliance with treaties; and by contributing to the building of confidence between East and West. As part of Canada's program of action for the remaining half of the disarmament decade, the Canadian government provides \$1 million annually to the verification research unit in the Department of External Affairs. This unit focuses on the practical, technical problems linked to verification that must be resolved as a prerequisite to incorporating binding verification provisions in arms control treaties.

Domestically, the Canadian government seeks to enhance the public dialogue on these issues through such means as the office of the ambassador for disarmament, the non-governmental consultative group on disarmament and arms control affairs, through wide dissemination of *The Disarmament Bulletin*, and through support for non-governmental research and public information activities via the disarmament fund.

### 21.3.5 UN specialized agencies

Canada is a member of the specialized agencies of the UN, and is the host country of one, the International Civil Aviation Organization. Canada maintains permanent missions to the

UN headquarters in New York, Geneva and Vienna to UNESCO in Paris, and the IAEA in Vienna. Canada also has accredited representatives to agencies located in Rome (FAO), Nairobi (UNEP) and Vienna (UNIDO). The regular budgets of the UN specialized agencies in 1984 totalled approximately US\$850 million. Canada's largest contributions were to the WHO, FAO and UNESCO.

**WHO** (Geneva). The World Health Organization is the largest of the specialized agencies in size of programs. To achieve its purpose of improving the health of the people of the world, WHO carries out programs of training and aid to equip countries to improve their own health services. WHO also provides day-to-day information on major communicable diseases, such as cholera and yellow fever. It has also co-ordinated large-scale industrial research into heart disease and cancer.

**FAO** (Rome). The Food and Agriculture Organization has the second largest budget of any of the specialized agencies. Its purpose is to raise levels of nutrition and improve production and distribution of food supplies from farms, forests and fisheries. The FAO carries out programs of technical assistance in nutrition and food-management, soil-erosion, reforestation, irrigation engineering, pest-control and the use of fertilizers.

**UNESCO** (Paris). The United Nations Educational, Scientific and Cultural Organization endeavours to promote international co-operation and understanding in the spheres indicated by its name. UNESCO carries out programs designed to increase facilities for education.

**ILO** (Geneva). The International Labour Organization, established by the Treaty of Versailles, strives to promote social justice by improving labour conditions and living standards. The ILO, in co-operation with management, labour and government, endeavours to establish minimum standards in such fields as social security, wages, hours of work, safety and worker compensation.

**ICAO** (Montreal). The International Civil Aviation Organization establishes international standards and regulations for civil aviation and promotes the development and planning of international air transport. It has been active in efforts to protect international civil aviation from all forms of terrorist activity. Programs are carried out to improve safety, to simplify procedures for international air travel and transportation, and to aid countries in developing air networks.



**ITU.** The International Telecommunications Union, oldest of the specialized agencies, is responsible for regulating, co-ordinating and planning international telecommunications in the fields of telephone, telegraphy and broadcasting. ITU co-operates with individual countries in developing telecommunications.

**WMO.** The World Meteorological Organization was established in 1950 to replace the International Meteorological Organization, formed in 1878. The WMO's primary function is to facilitate the international exchange of weather reports, to aid aviation and shipping, and to help countries establish meteorological services.

**UPU.** The Universal Postal Union is the second oldest specialized agency. Its purpose is to promote the organization and improvement of postal services and to provide technical assistance as requested.

**WIPO.** The World Intellectual Property Organization is one of the newest of the specialized agencies, dating from 1974, although its origins can be traced to 1883. It promotes the protection of intellectual property among states and in collaboration with other organizations, and ensures administrative co-operation among the unions previously established to protect intellectual property. The principal unions are the Paris Union (International Union for the Protection of Industrial Property), which dates from 1883, and the Berne Union (International Union for the Protection of Literary and Artistic Works), concluded in 1886.

**IMO** (London, England). The International Maritime Organization, one of the smaller UN agencies, facilitates co-operation among governments on technical matters affecting international shipping, in order to achieve the highest practicable standards of maritime safety and efficiency in navigation. IMO has a special responsibility for safety of life at sea, and for the protection of the marine environment through prevention of pollution of the sea caused by ships and other craft. IMO co-operates with other international bodies on shipping matters and co-ordinates its activities with other specialized agencies of the UN. It is responsible for convening international conferences on shipping matters and for drafting international conventions or agreements on this subject.

**IAEA** (Vienna). Although usually treated as a *de facto* specialized agency, the International Atomic Energy Agency is in reality an independent intergovernmental organization under the aegis of the United Nations. The IAEA is empowered to enlarge the contribution of

atomic energy to world peace, health and prosperity and, upon request, to apply safeguards to nuclear equipment and material to ensure that they are not diverted to non-peaceful uses. The IAEA has been given responsibility by the United Nations for applying the safeguards called for under the Treaty of the Non-Proliferation of Nuclear Weapons.

**UNCTAD.** The United Nations Conference on Trade and Development, while not a specialized agency, is an organization which was established by the UN General Assembly in 1964 and which convenes every four years. It has a permanent secretariat located in Geneva and its governing body, the Trade and Development Board (TDB) meets twice annually. Canada is a member of both the Conference and the TDB. UNCTAD was mandated by the General Assembly to consider problems of trade and development, with particular emphasis on the situation of the developing countries.

**UNIDO** (Vienna). The United Nations Industrial Development Organization achieved specialized agency status in 1979. Its objectives are to promote industrial development and to help accelerate industrialization in the developing countries.

**IFAD.** Established in 1974, the International Fund for Agricultural Development exists to improve agricultural production, in the broad sense including forestry and fisheries, by financing developing projects.

**IMF.** The work of the International Monetary Fund since its inception has been directed to facilitating the expansion and growth of world trade and payments as a means of raising world standards of living and fostering economic development. The fund is intended to promote and insure stability and order with respect to exchange rates, as well as to establish mechanisms for balance-of-payments assistance that will enable member countries to correct temporary imbalances with a minimum of disturbance to the international monetary system and their economic development programs. Its assets are available for providing short- and medium-term financing to both developed and developing member countries. Given disturbances in exchange markets in recent years, the floating of some major currencies and increased divergence of payments positions between countries, the fund has placed increasing emphasis on its role as a centre for international co-operation and consultation. The fund also constitutes an important source of economic advice and technical assistance to developing countries.



**IBRD.** The International Bank for Reconstruction and Development, with its two affiliates, is empowered to extend loans and credits to all member countries, especially those in the Third World, for projects that bank studies have indicated will make an important contribution to the borrower's economic development. The three organizations differ essentially in the source of their funds and the terms of their loans. The IBRD obtains most of its funds from bonds issued on world capital markets and must, accordingly, lend on competitive terms.

**IDA.** The International Development Association relies on interest-free advances from governments for the bulk of its resources, and makes loans on highly concessional terms.

**IFC.** The International Finance Corporation seeks to promote the growth of productive private enterprise in developing member countries by facilitating loans on competitive terms without government guarantee.

**Related agency — GATT.** The General Agreement on Tariffs and Trade is a multilateral treaty, subscribed to by 90 governments which together account for more than four-fifths of world trade. Its basic aim is to liberalize world trade and place it on a secure basis, thereby contributing to economic growth and development and to the welfare of the world's peoples. The General Agreement, which came into force in January 1948, is the only multilateral instrument that lays down agreed rules for international trade. It also functions as the principal international body concerned with negotiating the reduction of trade barriers and other measures which distort competition, and with international trade relations. GATT is thus both a code of rules and a forum in which countries can discuss and overcome their trade problems and negotiate to enlarge world trading opportunities.

### 21.3.6 Financial agencies

Four international financial institutions: the International Monetary Fund (IMF); the World Bank (IBRD — International Bank for Reconstruction and Development); the International Development Association (IDA); and the International Finance Corporation (IFC) are specialized agencies in the multilateral system but are not actually organs or agencies of the United Nations. Membership in the IMF is mandatory for membership in the IBRD, IDA and IFC.

Unlike the UN system, membership in these bodies is not universal. Many countries, particularly the centrally planned economies of Eastern Europe, have not been prepared to

accept required reporting procedures relating to balance of payments, gold and foreign exchange positions and other economic indicators.

### 21.3.7 Canada and international terrorism

The principal thrust of Canada's international counter-terrorism efforts has been to facilitate multilateral co-operation in such fora as the Economic Summit, the International Civil Aviation Organization and the International Maritime Organization. It is equally important for Canadian terrorism experts to continue to work bilaterally to encourage and facilitate the exchange of terrorism-related information and to enhance other forms of co-operation to improve the ability to detect and prevent terrorist activities directed against Canada and elsewhere.

### 21.3.8 International environment programs

Canada participates in activities of several intergovernmental and non-governmental international organizations. Among the intergovernmental organizations are many United Nations specialized agencies. Furthermore, Canada is a signatory to several international environmental conventions.

**UNEP.** Canada contributes to the environment fund of the United Nations Environment Programme, the only multilateral intergovernmental body established solely to deal with global and regional environmental issues. It is essentially a co-ordinating body. Its work program includes global environmental monitoring and assessment studies of climate, the atmosphere and ozone layer; a scientific information exchange and an international register of potentially toxic chemicals; and activities in such areas as encroaching deserts, soils, water, living resources, environmental law, human settlements and human health, ecosystems, environment and development, oceans, energy and natural disasters.

**WMO.** The World Meteorological Organization is organized geographically and by scientific sub-discipline into six regional associations and eight technical commissions which cover such areas as aeronautical meteorology, agricultural meteorology, atmospheric sciences, basic systems, climatology, hydrology, instruments and methods of observation and marine meteorology. Canada plays a prominent role at each level of WMO. As a member of the World Weather Watch, which is co-ordinated by WMO, Canada has set up nine stations of a planned network of 11 for monitoring air pollution in non-urban areas.

**ECE.** In activities of the UN Economic Commission for Europe, Canada participates in the Executive Body of the 1979 Convention on Long Range Transboundary Air Pollution and its working groups, as well as in the committee on water problems. In July 1985, Canada signed the protocol to the 1979 convention which calls for the reduction of sulphur emissions or their transboundary fluxes by 30% by 1993 at the latest.

**UNESCO.** Canada participates in the international hydrological program set up to facilitate a better scientific understanding of hydrological phenomena. As a member of the international coordinating council of the program on man and the biosphere, Canada has been influential in injecting four social science concerns: urbanization and industrialization, agricultural and forestry management practices, coastal ecosystems, and Arctic and isolated area development. In November 1985, Canada was elected a member of the World Heritage Committee.

**IMO.** Canada participates in the marine environment protection committee of the International Maritime Organization and in the scientific group on dumping. IMO is depositary of the London Dumping Convention, to which Canada is a signatory.

**WHO.** Following the 1974 agreement between Canada and the World Health Organization, the Canada Centre for Inland Waters was designated as a WHO international collaborating centre on surface and groundwater and acts on behalf of WHO in the execution of Canada's part of the project.

**OECD.** Canada participates in the environment committee of the Organization for Economic Co-operation and Development. The work of the committee is carried out through working groups which cover such areas as chemicals, energy, waste management, natural resources management, economy and environment, and the state of the environment.

**IUCN.** The International Union for Conservation of Nature and Natural Resources is both an intergovernmental and non-governmental organization which aims at the conservation and management of natural resources. Canada chairs the commission on national parks and protected areas.

## 21.4 Activities by region

### 21.4.1 The United States

There is no more important external relationship for Canada than that with the United States.

Geography, history, trade and economic opportunities and close social connections account for the extraordinary degree of interdependence which exists. Canada and the United States are each other's best customer by far. In 1985, Canada sold 78% of its exports to the US, accounting for 24% of Canada's GNP, and bought 22% of US global exports. In an effort to ensure and extend our access to the US market, the government has launched negotiations aimed at reaching a new trading arrangement with the United States.

Due to the wide range of issues that arise at the official level, many consultative mechanisms have been developed to deal with specific groups of problems. Most notable are the annual Summits between the Prime Minister and the President and quarterly meetings between the two foreign ministers. There are a whole range of contacts by other ministers, including those in provincial and state governments, and parliamentary contact. Other consultative mechanisms include The International Joint Commission which deals with transboundary problems such as pollution and flows of boundary waters. In defence, co-operation is ensured bilaterally through the North American Air Defence (NORAD) arrangements and multilaterally through the North Atlantic Treaty Organization (NATO).

### 21.4.2 The Caribbean

Canada has long enjoyed close relations with the countries of the Commonwealth Caribbean. In 1979, Canada signed a trade and economic agreement with the countries of the Caribbean Commonwealth market (CARICOM). In February 1985, at a meeting with his Commonwealth Caribbean counterparts in Kingston, Jamaica, Prime Minister Mulroney reaffirmed Canada's commitment to the Commonwealth Caribbean as a priority region for Canadian aid and development.

### 21.4.3 Latin America

In addition to maintaining diplomatic relations with all Latin American countries through resident missions with dual or multiple accreditation, Canada maintains a permanent observer mission to the Organization of American States in Washington, DC, and is a full member of many inter-American institutions.

Trade is a major feature of contemporary Canadian relations with Latin America. Exports to, and imports from the Latin American region have risen in recent years, although problems in the economies of such countries as Mexico, Brazil and Venezuela have had a dampening effect on

Canadian exports to those areas. In 1986, Brazil was Canada's eighth largest trading partner. Canada has developed industrial and technical co-operation agreements with countries of the Latin American region. Venezuela is the leading supplier of oil to Canada.

#### 21.4.4 Europe

Canada's cultural and social ties with Western Europe and shared commitment to its security through membership in NATO have been strengthened in recent years through economic, trade and commercial relations. This development has taken place in parallel with the growth of the European Economic Community (EEC), which has become the world's largest trading entity.

Western Europe is an area of major importance to Canada in all matters: political consultations, security, co-operation in development, science, technology, communications, cultural exchanges, tourism, immigration and many others.

Canada seeks to expand political dialogue, contacts and mutually profitable co-operation with the Soviet Union and Eastern Europe in order to contribute to better East-West relations. The Vienna follow-up meeting to the Conference on Security and Co-operation in Europe which began in November 1986, is examining security questions, economic co-operation, human rights issues and cultural exchanges between East and West.

#### 21.4.5 The Middle East

In recent years, Canada has increased the number of its diplomatic missions in the Middle East in response to the area's growing significance in trade, industrial development and political activity. Despite unsettled conditions in some areas, Canada has consistently attempted to follow a policy of balance and objectivity between the parties to the Arab-Israeli dispute.

The decline in petroleum consumption and prices, coupled with a reduction in the region's share of the international market, has led to decreased revenues among Middle East oil producers. This has had an adverse impact on developmental projects and regional employment opportunities. Employment receipts, a major hard currency source for many Middle East labour surplus countries, have therefore plummeted. There remain, nevertheless, many opportunities for export of Canadian goods and services. Key sectors such as electronics,

avionics, operations and maintenance, power generation and distribution, educational services and training offer the highest prospects for success in the near term. Middle Eastern countries are becoming more aware of Canada's reputation as a competitive and reliable exporter. Saudi Arabia is Canada's largest market in the area.

#### 21.4.6 Africa

Direct relations were established with former British colonies in Africa as they became independent members of the Commonwealth. Increasing contacts and diplomatic relations with the newly independent French-language African states soon followed. Canada now maintains diplomatic relations with almost all the independent African states through resident Canadian missions in several countries, most of them having dual or multiple accreditation. The development of diplomatic and commercial relations has been accompanied by a significant and growing program of Canadian development assistance to Africa. There has also been growth in trade, technical assistance and cultural exchanges. South Africa is a major preoccupation.

#### 21.4.7 Asian and Pacific region

The Asia-Pacific region has emerged as an area of great political, economic, cultural and strategic significance and interest for Canada. In 1982, for the first time, Canada's two-way trade with countries of the Pacific Basin was greater than trade with our traditional Atlantic trading partners. A reflection of the growing Canadian recognition of the importance of the region for Canada was the opening in 1986 of new trade offices in Osaka, Shanghai, Bombay and Auckland. Asian-Pacific countries have replaced Europe as the major source of new immigrants to Canada.

The 1985 National Trade Strategy identified the Asian-Pacific area as the second most important region, following the US, for Canadian export development.

Japan, Canada's second largest trading partner, a major capital exporter and a source of technological innovation, is of major interest. An exchange of visits by both Prime Ministers in 1986 enhanced the Canada-Japan relationship. New initiatives are being developed to expand contacts in the political, economic, academic, cultural and scientific sectors.

Programs for major economic reforms are included in China's seventh Five Year Plan (1986-90). These efforts to modernize provide continuing opportunities for increased export



trade from Canada. Prime Minister Mulroney's official visit to Asia, including China, in May 1986 highlighted Canada's special relationship with the People's Republic of China which dates back to 1970 and is characterized by numerous exchanges across the cultural, scientific, technological and academic spectrum.

Canada-Korea relations have continued to develop along with the increasing trade links between the two countries, highlighted by the Prime Minister's visit to Korea in May 1986. Business and government representatives meet regularly to discuss areas of mutual interest.

Canada's bilateral relations with the individual countries of South East Asia feature both development assistance and commercial interest. A further dimension has been added in the evolution of Canada's relationship with the Association of South East Asian Nations (ASEAN). Indonesia, Singapore, Malaysia, Thailand, the Philippines and recently Brunei have, through their participation in ASEAN, indicated an increased willingness to co-operate for their mutual benefit. In formal meetings with ASEAN representatives since 1976 Canada has continued to express interest and support for this organization in its efforts to promote broad regional development and increase stability in the area. Canada has assisted the ASEAN countries in coping with the Indochinese refugee burden by accepting over 100,000 refugees since 1975.

Relations with Australia and New Zealand are deeply rooted in similar institutional, legislative and judicial experience. Canada co-operates extensively with both countries in multilateral economic and political fora, particularly in the area of trade in agricultural products and disarmament. The bilateral relationship is solidly based on substantial two-way trade, with both Australia and New Zealand representing important and growing markets for semi- and fully-manufactured products. Canada is also beginning to establish more concrete linkages with the island nations of the South Pacific.

India's gathering economic strength and geopolitical significance, underlined in the June 1986 Report of the Special Joint Committee on Canada's International Relations, are factors in the formulation of Canadian foreign policy in Asia. Pakistan, Bangladesh and Sri Lanka have received substantial Canadian support in aid and developmental projects. Fundamental to the pursuit of specific Canadian policy concerns is the continuing political dialogue with countries in the area. The formation, in 1985, of the South

Asian Association for Regional Co-operation (SAARC), composed of Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka, should serve to enhance regional co-operation and lessen tensions among member countries.

## 21.5 International trade

### 21.5.1 International trade statistics

Importers or exporters, or their agents, are required to declare, on specified forms and at the nearest customs ports, the particulars of goods entering or leaving Canada. Copies of these declarations are sent via the Department of Customs and Excise to the International Trade Division of Statistics Canada where the data from these declarations are tabulated to produce statistics on merchandise trade.

Merchandise trade is defined as movements of goods into or out of Canada which add to or subtract from the stock of material resources in Canada. Thus goods which enter or leave Canada on a temporary basis are excluded from trade data.

Goods are valued at the transaction price, i.e., the actual selling price or transfer price. Exports values normally reflect the FOB (free on board) value at the point at which they are put aboard a carrier either at the port of clearance or at the place of lading. Import values are the FOB transaction value at the foreign port of export, and should exclude freight, insurance and other costs required to bring the goods to Canada. In practice, both imports and exports may include transportation costs which cannot be identified.

Merchandise trade data, as compiled from customs entries, are on a "customs basis". Adjustments are made to render them suitable for use in the balance of payments. These adjustments are made for reason of coverage or valuation or timing. Coverage or valuation adjustments include deductions made from exports and imports of automotive parts for retroactive value adjustments and for special tooling and other charges. The timing adjustments are made to account for a time lag in the reporting of data covering trade in electrical energy; exports of crude petroleum and natural gas; and imports of "swap oil" from the United States. Other adjustments include the results of the United States/Canada trade reconciliation exercise (Table 21.7) and the sale to non-residents of goods (particularly gold) which do not leave the country. Merchandise trade data including the required adjustments are on



a balance-of-payments basis. The data in the statistical tables of this chapter are on a balance-of-payments basis unless otherwise indicated.

### 21.5.2 Highlights of international trade, 1982-86

The value of imports increased 7.5% in 1986 (Table 21.2) to \$110.5 billion, following increases of 12.3% in 1985 and 25.2% in 1984. In the 1982-86 period, the value of imports increased at an average of 8.2% annually, compared with an annual increase of 9.4% in the period 1979-83.

The value of exports remained virtually unchanged, rising only 0.3% in 1986 to \$120.6 billion, compared with increases of 7.2% and 23.7% in 1985 and 1984, respectively. In the 1982-86 period, export value recorded increases averaging 7.7% annually, compared with an annual increase of 11.5% in the 1979-83 period.

The merchandise trade surplus — the excess of exports over imports — was \$10.1 billion, down from the higher surpluses recorded for 1982-85.

Price changes have a significant impact on trade values. The Paasche or current-weighted price index is calculated from price relatives with

1981 as a base year (1981 = 100) and current values as weights.

The Paasche import price index at the total level rose 1.1% in 1986 (Table 21.8). In the 1982-86 period, the price index increased at an annual average of 2.4%, compared with substantially higher increases in earlier years. Prices for domestic exports posted annual increases which averaged only 0.8% in the period 1982-86.

The fixed-weight or Laspeyres volume index (1981 = 100), a measure of changes in trade values in real physical terms, is calculated by dividing a value index by the corresponding Paasche price index.

The import fixed-weight volume index was up 7.3% in 1986 (Table 21.8), preceded by increases of 9.3% (1985) and 19.4% (1984). Export volume showed increases averaging 6.8% in the 1982-86 period.

### 21.5.3 Trade by commodity group, 1982-86

**Imports.** Automotive products accounted for 30.2% of total imports in 1986 (Table 21.3), followed by machinery and equipment (accounting for 28.3% of total imports), industrial goods and materials (17.6%), other consumer

Chart 21.3

### Canadian merchandise trade with other countries, 1986

Billion dollars



goods (10.8%), agricultural and fishing products (6.5%) and energy products (4.6%). The increase of automotive products was 5.2% in 1986, compared with 23.3% in 1985 and 37.2% in 1984. In the period 1982-86, automotive products posted an average annual increase of 17.3%. Machinery and equipment rose at an average of 7.4% annually.

**Exports.** The main export commodity groups in 1986 were: automotive products (28.5% of total exports), industrial goods and materials (19.0%), machinery and equipment (15.6%), forest products (14.6%), energy products (9.4%) and agricultural and fishing products (9.0%). In the 1982-86 period, automotive products recorded the fastest growth, rising at an annual rate of 21.2%. Agricultural and fishing products lagged behind with an increase of 0.9% annually (Table 21.4).

**Principal trading areas.** The principal trading areas shown in some tables include groupings which are defined as follows: other EEC — Belgium, Denmark, France, the Federal Republic of Germany, Ireland, Italy, Luxembourg, the Netherlands, Greece, Portugal and Spain (the UK is also a member of the EEC but is shown

separately because of the importance of its trade with Canada); other OECD — Austria, Finland, Iceland, Norway, Sweden, Switzerland, Turkey, Australia and New Zealand (the EEC countries, United States, Japan and Canada are also members of OECD); other America — defined as all countries and territories of North and South America (other than the United States and Canada) including Greenland, Bermuda and Puerto Rico. (In January 1986, Portugal and Spain joined the EEC.)

#### 21.5.4 Imports and exports by country

**Imports** from the United States were up by 4.3% or \$3.2 billion in 1986 over 1985 (Table 21.5). Imports from other EEC countries and Japan were up 28.7% (or \$2.0 billion) and 24.8% (or \$1.5 billion), respectively. Imports from the United Kingdom increased 16.7% and imports from other countries were up 4.0%.

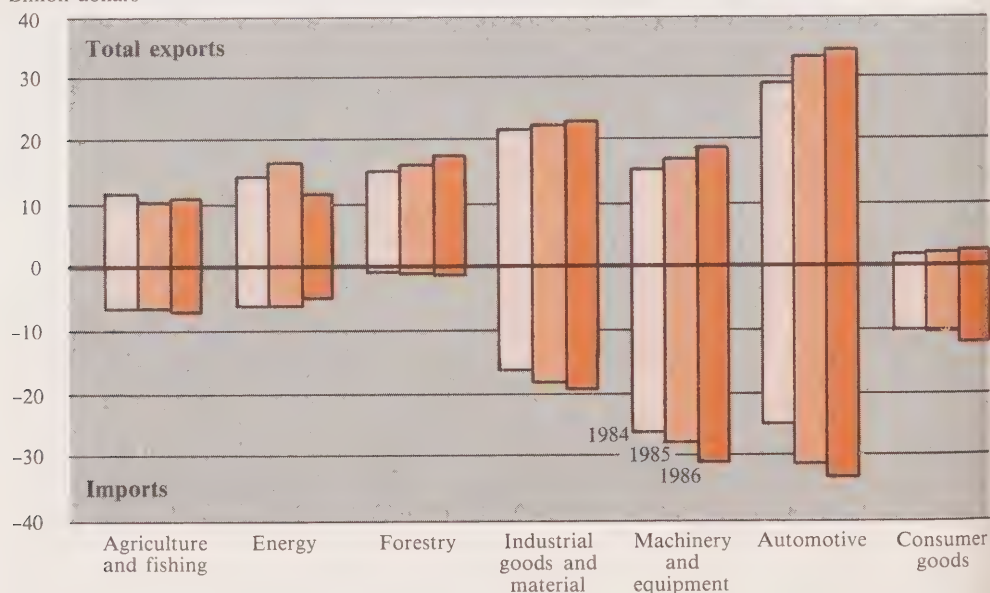
The United States' share of Canadian imports decreased from 70.5% in 1982 to 69.5% in 1986. Other EEC countries, Japan and the United Kingdom had increased their shares in the period 1982-86, while the share of other countries dropped from 15.6% to 12.2% in 1986.

Chart 21.4

#### Imports and total exports, by major commodity groupings, 1984-86

Balance-of-payments basis

Billion dollars



**Exports** to the United States declined 0.8% or \$0.8 billion. There were increases of exports to the other EEC countries of 22.3% (about \$1.0 billion), to the United Kingdom of 15.1%, and to Japan of 2.3%. Exports to other countries decreased 2.4%.

In the 1982-86 period, the US share of Canada's exports advanced from 68.7% to 77.6%. There was, however, a loss of export market share in the United Kingdom, other EEC countries, Japan and other countries. Other countries' share decreased from 16.8% to 10.7% in 1986, reflecting lower exports to, for example, Eastern Europe, the Middle East, and other African countries.

### 21.5.5 Reconciled data of trade with the United States

After adjusting for conceptual differences which normally add to the balance calculated from Canadian data, the reconciled trade surplus with the United States measured Cdn. \$21.5 billion in 1985, up substantially from the reconciled trade surplus of Cdn. \$3.4 billion in 1981 (Table 21.7). According to reconciled data, Canadian exports to the US increased 67.5% and Canadian imports from the US rose 37.1% in the years 1981 to 1985. The high export value to the US reflected a strong US currency in which most exports, including those to the US, are stated.

## 21.6 Federal trade services

Canada's economy is vitally dependent on international trade. Competition among industrial nations is intense and increased exports are not easy to achieve. A successful export trade development program can only be assured by combining good products, efficient production and aggressive, intelligent marketing with government support.

External Affairs is responsible for the delivery of a number of export promotion programs.

*The Program for Export Market Development (PEMD):* The industry-initiated component of PEMD encourages the export of Canadian goods and services by offering assistance to Canadian businesses to participate in or undertake various types of export promotion activities and sharing the financial risks of entering new foreign markets. The program's government-initiated component provides funds for organizing national exhibits at trade fairs outside of Canada, trade and economic missions to foreign countries and trade missions to Canada by foreign officials and businessmen.

*The Technology Inflow Program (TIP):* TIP promotes international collaboration on technological innovation. The program eases development of new or improved Canadian products, processes, or services by facilitating the flow of foreign technology with Canada, and by providing Canadian scientists and engineers with financial support to assist them in gaining first-hand knowledge of foreign technologies.

*The Cost-Recoverable Technical Assistance (CRTA) program:* CRTA facilitates export opportunities for Canadian technical goods and services (including capital projects) through government-to-government technical assistance projects, and through secondment of public sector expertise in support of private sector project initiatives.

### 21.6.1 Department of External Affairs

**The economic policy bureau** is responsible for developing advice on international economic issues which affect Canadian interests. It develops and co-ordinates Canadian positions for economic summits, Canadian participation in the OECD, on questions related to Canada's relations with developing countries and on the economic dimensions of East-West relations. It also provides departmental input into the government policy process relating to international financial, monetary and investment issues as well as energy and environmental questions.

**The special trade relations bureau** is responsible for the effective administration of import and export controls under the Export and Import Permits Act. The bureau implements government policies with respect to the import of textiles and clothing, footwear, agriculture and other products; and with respect to the export of military and strategic goods and the import of arms and munitions of war. The bureau also implements government policy with respect to international nuclear policy issues.

**The trade policy bureau** is responsible for formulating and implementing Canadian trade policy with particular reference to the activities of the General Agreement on Tariffs and Trade (GATT), the Organization for Economic Co-operation and Development (OECD), the United Nations Conference on Trade and Development (UNCTAD) and the trade aspects of domestic industrial and agricultural policies. It is responsible for sectoral trade issues, such as services, resource and commodity trade policy questions, including the preparation and conduct of the negotiation of intergovernmental commodity arrangements and agreements. The bureau also



provides support and advice regarding the management of international trade relations issues.

**The five international branches** (Europe, Asia and Pacific, Africa and Middle East, Latin America and Caribbean, and the United States) each headed by an assistant deputy minister, are focal points on matters affecting Canada's trade and economic relations with other countries and areas. Branch responsibilities include development of Canada's international trade strategy, market development programs for individual countries and areas and improvement of access for Canadian products to export markets. The branches are centralized sources of information on Canada's trade with specific countries or regions and they provide a regional perspective for matters of both international trade relations and export trade development. They also provide information, advice and guidance to government agencies and to the business community on foreign government trade and economic regulations and practices; maintain contact, normally through Canadian posts abroad, with foreign markets and foreign governments on matters pertaining to markets for Canadian exports; and provide advice to the department, to other Canadian government agencies and to the Canadian business community on export market problems and opportunities.

**The trade commissioner service** promotes Canada's export trade and represents and protects its commercial interests abroad. In addition, trade commissioners are engaged in activities to attract investment to Canada and to promote technology transfers, for example, through the Technology Inflow Program. Accordingly, a trade commissioner has a variety of responsibilities: to act as an export marketing consultant; to bring foreign buyers into contact with Canadian sellers; to help organize trade fairs and trade missions; to recommend modes of distribution and suitable agents; to report on changes in tariffs, exchange controls and other matters affecting Canada's trade with the countries to which he or she is accredited; to assist in the identification and encouragement of potential investors in Canada; and to promote opportunities for technology transfer to Canada. A trade commissioner initiates programs to develop new markets for Canadian products, responds to inquiries from Canadian firms and provides advice to the visiting Canadian business persons.

The scheduled return of trade commissioners for official tours of Canada helps Canadian firms

interested in the export trade. Trade associations are informed in advance of these visits so that business persons wishing appointments may arrange them through one of the 15 regional offices of the Department of Regional and Industrial Expansion. In conjunction with the Department of External Affairs, these offices are important links between the business community and trade commissioners posted abroad.

**The grain marketing bureau** of the Department of External Affairs provides policy advice to the government and information and trade promotion assistance for grains and oilseeds and their products through contact with the Canadian Wheat Board, other agencies concerned with grain marketing, trade commissioners abroad, and the private trade sector. Trade promotion includes organization of missions and trade fairs in Canada and abroad. The department also provides cost- or risk-sharing to exporters for projects designed to increase sales of grains and oilseeds, which would not be realized without incentives.

Canada has been selling grain on credit since 1952. In the 1985-86 crop year, credit sales, which are on terms of three years or less, accounted for 9% of Canadian grains and oilseeds exports. The bulk of these sales were of Western wheat and barley marketed by the Canadian Wheat Board and financed under the Canadian Wheat Board Act with a government guarantee of repayment. Sales of other grains on credit are insured under the Export Development Act.

The Canadian food aid program has expanded from \$2 million in 1962-63 to more than \$350 million. Most of the food aid sent to about 85 countries consists of wheat and wheat products; corn, canola oil, skim milk powder, pulses and fish are also included. The Canadian International Development Agency administers 44% of Canada's food aid to foreign governments under multilateral programs, mainly the World Food Program, 50% through bilateral channels and 6% through non-government organizations. Canada's minimum annual grain and grain products aid commitment under the Food Aid Convention of the International Wheat Agreement is 600 000 tonnes.

**The defence programs bureau** assists Canadian industry to achieve the maximum number of defence contracts in foreign markets, not only for research and development but also for manufactured products. In addition to the United States, Canada has several research/development/production agreements with NATO allies. Many



of Canada's trade commissioners abroad have a specific responsibility to promote Canadian defence exports.

**Tourism program abroad.** External Affairs is responsible for the delivery of elements of the federal tourism program through personnel at posts abroad. In 1985, tourism expenditures in Canada totalled over \$19.9 billion. This expenditure represented slightly over 4.4% of Canada's Gross National Product, provided direct employment for over 590,000 Canadians, provided over \$9.0 billion in government revenue and induced over \$3.2 billion in investment. Of the total \$19.9 billion, \$5 billion or 25% represented earnings from foreign visitors. It is for this portion of the program that External Affairs, in co-operation with DRIE/Tourism Canada, is responsible.

#### **21.6.2 Export Development Corporation (EDC)**

EDC is a Crown corporation that provides insurance to exporters, guarantees to banks and financing to foreign buyers of Canadian capital goods and services to develop Canada's export trade. Buyer/borrower credit-worthiness is a major criterion for all transactions supported by the Corporation, since it is the established policy of the Corporation to conduct its operations on a financially self-sustaining basis. Commercial prudence is, of course, balanced against the need to assist exporters. To benefit from its services, Canadian exporters must compete in foreign markets on the usual commercial criteria of price, quality, delivery and service. To qualify for EDC support, exports must have a Canadian content of at least 60%. All goods and services are eligible for EDC export credits insurance but only capital goods normally sold on credit terms of one year and more are eligible for financing support. Anyone carrying on business in Canada is eligible for EDC support.

**Export credits insurance** protects exporters for up to 90% of their losses if their foreign customers are unable or unwilling to pay their bills. The most widely used policy is global comprehensive, which provides protection against both political and commercial developments. Political developments include war or revolution or foreign exchange blockages, and commercial developments include insolvency or repudiation. Global political insurance is similar to global comprehensive but without the commercial coverage. Selective political insurance covers exports to specified countries for political risk. Global policies cover exports sold on short-term credit. For exports sold on medium-term credit of two to five years, EDC provides specific transaction insurance, which covers individual transactions.

In addition to the global policies and specific transaction insurance, EDC also offers a number of specialized policies, including policies which cover: commercial risks on sales to the United States, both for small companies, and for large-volume companies willing to accept a deductible in return for lower premiums; political risks on sales of bulk agricultural products sold on 360-day credit; and political risks for equipment used on foreign job sites. It also offers insurance that protects bid and performance instruments posted in export transactions, and foreign investment insurance that protects investors against expropriation, war or revolution, and inability to repatriate earnings. There are also policies that protect exporters supported by EDC loans during the pre-disbursement period, and sub-suppliers on EDC-supported transactions against non-payment resulting from developments involving the buyer or the exporter of record (the company that has the main contract). Members of an exporting consortium can get coverage against the call of a performance instrument due to the non-performance of another member or members of the consortium, and a domestic surety company can get coverage if it provides a performance bond to a foreign buyer on an exporter's behalf.

Guarantees are issued to banks making export loans, issuing bid and performance securities on behalf of an exporter, or purchasing notes given to an exporter by a foreign buyer in payment for capital goods or services. There is also a guarantee for banks that provides financing for exports of agricultural products sold on credit terms of up to three years when warranted by international competition, and a short-term line of credit guarantee that provides cover to banks and financial institutions extending lines of credit to foreign banks, which in turn finance purchases of Canadian goods sold on short-term credit.

**Export financing** supports sales of capital goods and services on credit terms of one year or more. Examples of products financed by EDC include subway cars, airplanes, electronics equipment, machinery, flight simulators, services, and turn-key construction projects. There are eight types of financing programs available: loans; multiple disbursement agreement loans; protocols; lines of credit; note purchases; forfeiting; simplified note purchases; and specialized credits. In the case of loans, the financing agreement is made with the buyer for a specific purchase. In the case of multiple disbursement agreement loans, protocols and lines of credit, agreements are signed to cover future business. Because rates and terms are established when these agreements are signed,

allocations made under them can be made with a minimum of delay. In the case of the note purchase programs — note purchases, forfeiting, and simplified note purchases — EDC purchases promissory notes issued to the exporter by the foreign buyer and takes over the repayment risk. Specialized credits is a program which enables Canadian buyers to purchase goods from Canadian exporters for use or lease outside Canada on a permanent basis.

### 21.6.3 Tariff rates

The customs tariff sets out four different tariff treatments: the British preferential, most-favoured-nation, general and general preferential. The special arrangements for the United Kingdom and Ireland disappeared on January 1, 1987, when those countries were granted most-favoured-nation treatment.

**General tariff rates** are applied to goods imported from countries with which Canada has no tariff arrangements, such as Albania, Balau Islands, North Korea, Libya, Oman and Saudi Arabia. The German Democratic Republic, once subject to general tariff rates, is now entitled to most-favoured-nation rates. Also, the general tariff rates apply unconditionally to goods imported when the country of origin cannot be determined.

**Most-favoured-nation rates** are tariff rates fixed by Parliament as being more favourable than the general tariff. These rates reflect Canada's international tariff arrangements such as GATT or specific bilateral trade agreements. These rates apply conditionally to those goods for which most-favoured-nation treatment is claimed.

**The British preferential tariff rates** are fixed by Parliament and offer more preferential (lower) rates of duty than the most-favoured-nation rates to commodities of British countries or any other British colony or protectorate or territory under British trusteeship as provided for in Section 3 of the customs tariff. South Africa is entitled to most-favoured-nation rates rather than British preferential rates. Furthermore, some of these countries, such as Australia, are offered through bilateral trade agreements a preferential tariff rate lower than the British preferential on certain specified goods.

**General preferential tariff rates** are formula-based rates and reflect, since July 1974, Canada's international commitment to developing countries under a generalized system of preferences. The formula, as established by Parliament, generally provides for a margin of preference to be either equivalent to the British

preferential tariff rate or one-third less the most-favoured-nation rate.

In all four tariff treatments, goods are subject to various rates of duty including a free rate of duty.

**Value for duty.** In general, the Customs Act provides that the value for duty of imported goods shall be the fair market value of like goods in the home market of the exporter at the time and place from which the goods are shipped directly to Canada when sold to purchasers with whom the vendor deals at arm's length and who are at the same trade level as the importer, and in substantially the same quantities for home consumption in the ordinary course of competitive trade. Where like goods are not sold for home consumption and in a few special cases, other methods are used to determine the value for duty. Ordinarily it may not be less than the amount for which the goods were sold to the purchaser in Canada, exclusive of all charges after their shipment from the country of export.

**The Special Import Measures Act (SIMA)** provides the basis in law for the department's anti-dumping and countervailing duty program. Dumping occurs when goods are sold for export to Canada at prices lower than those prevailing in the exporter's domestic market. Where dumped imports have caused injury to Canadian production, the amount or margin of dumping may be offset by the imposition of anti-dumping duty. Similarly, when imports are unfairly subsidized by foreign governments, the subsidy can be offset by the levy of countervailing duty. The imposition of anti-dumping or countervailing duty is a measure taken to protect Canadian industries from unfairly-priced imports which cause or may cause injury to Canadian production of competing goods. In order to determine whether anti-dumping or countervailing duty should be imposed, the department investigates the pricing practices of the exporter and the level of foreign subsidies provided.

**Drawback.** Drawback legislation is designed to provide relief from customs duty and sales tax included in the manufacturers' costs to enable them to compete more equitably both abroad and at home with foreign manufacturers. It does this by granting a drawback, in the case of Canadian exporters, of customs duty and sales taxes paid on imported parts or materials used in Canada in the manufacture of goods subsequently exported. In certain strategic industries in Canada (aircraft, automobiles and other secondary manufacturers) costs of plant

equipment or key materials are reduced in the same manner when specified imported goods are used in eligible Canadian manufacturing. Other areas where drawbacks are payable include: ships stores; joint Canada-US projects; and imported goods exported or destroyed in Canada.

Additional information on customs and excise programs is provided in the *Annual Review of Revenue Canada Customs and Excise*.

#### **21.6.4 Trade agreements**

Canada's tariff arrangements with other countries fall into three main categories: trade agreements with a number of Commonwealth countries; the General Agreement on Tariffs and Trade (GATT); and other arrangements.

Canada signed the protocol of provisional application of the General Agreement on Tariffs and Trade in October 1947 and brought the agreement into force in January 1948. The agreement provides for scheduled tariff concessions and the exchange of most-favoured-nation treatment among the contracting parties, and lays down rules and regulations to govern the conduct of international trade.

Trade relations between Canada and a number of other countries are governed by trade agreements of various kinds, by exchange of most-favoured-nation treatment under orders-in-council, and by even less formal arrangements. Details are available from the appropriate international bureaus of External Affairs Canada.

## **21.7 Canadian development assistance programs**

### **21.7.1 Canadian International Development Agency (CIDA)**

CIDA is responsible for operating and administering most of Canada's international development assistance programs. In the fiscal years 1981-82 to 1985-86 inclusive Canada spent \$9.24 billion on international development co-operation, an average of about \$1.85 billion for each of the five years. Of the total, about \$3.75 billion went to bilateral (government to government) development programs, \$3.36 billion to multilateral assistance programs and \$2.1 billion to a variety of other programs, including contributions to assist the work of Canadian and international non-governmental organizations and incentives to encourage the Canadian private sector to invest in developing countries, as well as funding for the International Development Research Centre (IDRC), for Petro-

Canada International Assistance Corp., for international relief and for various scholarships.

CIDA's bilateral program assists selected developing countries in Asia, Africa and the Americas with many types of development projects, including various forms of technical assistance. In 1985, CIDA supported 6,291 Third World students and trainees — 3,342 studying in Canada, 461 in their own country, and 2,488 in a third country. Of the total, 1,477 (or about 23%) were women. In addition, 4,309 Canadian experts were on assignments overseas in 1985, fully or partly supported by CIDA — working directly for CIDA, or through private firms, institutions and non-governmental organizations. Of this total, 1,202 (28%) were women.

Canadian bilateral assistance was financed through a mixture of non-repayable grants and development loans (interest-free, or at low rates) until April 1, 1986, when the government announced that it would become an all-grant program. Earlier, Canada took other steps to help the developing countries cope with their growing debt problem. In 1977, Canada forgave past loans to countries designated least-developed by the United Nations, and provided all subsequent aid to them in grants. And at the UN special session on Africa in May 1986, Canada declared a moratorium on the aid-related debts of sub-Saharan countries.

The Asia bilateral program is Canada's oldest: since 1951 it has provided about \$5 billion in aid, mostly to Bangladesh, India, Pakistan, Indonesia and Sri Lanka. Food aid and infrastructure (dams, power transmission and transportation) were predominant in earlier years but more recently a new generation of projects has emerged that emphasizes rural development. Co-operation was extended to China in the 1980s. The Asia program's priorities in the future will include agriculture, energy, human resource development, technology transfer, and industrial co-operation.

Africa became the focus of world attention during the crisis of 1984-85. Canada took several steps to help fight drought and famine there, providing emergency aid and creating the Africa 2000 program. The overall goal is to help sub-Saharan Africa recover and restore the balance between people and their environment. Less emphasis is now being put on creating costly infrastructure, and more on maintaining and restoring. Canada's bilateral aid to Africa up to 1985-86 totalled about \$4 billion. Major recipients in 1986 included Burkina Faso, Cameroon, Côte-d'Ivoire, Ethiopia, Ghana,



Kenya, Mali, Niger, Rwanda, Senegal, Sudan, Tanzania, Zaire, Zambia and Zimbabwe.

In francophone Africa CIDA's efforts have included projects in such fields as irrigation, well-drilling, erosion control, reforestation, rural electrification and rail transportation, as well as health, education and community development. In anglophone Africa, Canadian aid tries both to meet the needs of the rural poor and to help overcome Africa's severe lack of infrastructure. Food production and rural development projects have been emphasized.

Canada's assistance to countries in the Americas has totalled about \$1 billion. In the Caribbean, where Canadian aid dates back to 1958, tourism is important; projects have included improvements to airports, communications links and water systems. The main priority is job creation, particularly in agriculture and manufacturing. In Latin America, where bilateral assistance from Canada began in 1970, rural development is emphasized. Countries in the Americas receiving significant amounts of bilateral aid from CIDA have included Haiti, Jamaica, Guyana, Colombia and Peru.

Through multilateral assistance Canada joins with other countries to support development initiatives beyond the scope of any single donor. Canadian funds for multilateral programs are channelled through UN agencies, financial institutions such as the World Bank and regional development banks, and other specialized international organizations. Canada contributes to about 60 programs or agencies and participates in their policy-making.

During the 1960s, Canada pioneered in providing government funding to help non-governmental organizations expand their efforts. In 1985-86, about \$220 million was provided (including \$14 million from provincial governments) to support more than 4,500 projects being carried out by several hundred non-governmental organizations and social institutions. These funds supported development projects in all regions of the world, aimed at helping the poorest people use local resources to become more self-reliant in such fields as food, health and education. Opportunities were also provided for managers from the Third World to learn about new approaches to problems, and Canadian groups received assistance for their development education efforts across the country.

Other CIDA disbursements during 1985-86 included \$26 million for humanitarian aid (mainly for refugees in Africa and Asia), and \$6 million for Canadian and Commonwealth

scholarships. In 1984, CIDA created a business co-operation branch to strengthen links between the aid program and Canada's private sector. Its industrial co-operation program received \$28 million in 1986 to help Canadian and Third World firms work together.

About half of Canada's overall aid program is tied to the procurement of Canadian goods and services. The bilateral program is 80% tied, while up to 20% may be untied to meet local costs. Goods such as equipment must have at least two-thirds Canadian content to be considered Canadian-sourced. Programs other than bilateral are largely untied.

Canada has long been one of the world's major suppliers of food aid, mostly through shipments of wheat, flour and canola oil, through multilateral agencies (mainly the World Food Program), through bilateral agreements with such countries as Ethiopia, Jamaica and Bangladesh, and through Canadian non-governmental organizations. In 1985-86, Canada contributed \$348 million — nearly \$1 million a day — in food, transport costs, and cash — making Canadians, on a per capita basis, the world's leading donors of food aid.

In recent years, CIDA has moved rapidly to increase the role of women in Canadian aid, both as agents and beneficiaries of development efforts. CIDA adopted guidelines in 1986, so that proposed projects will be assessed for their environmental impact, and has also taken steps to broaden the Canadian private sector's involvement in the program.

Canadian aid totalled \$2.17 billion in 1985-86, or 0.46% of GNP. The total for 1986-87 is estimated at \$2.5 billion, and the budget for 1987-88, at \$2.7 billion. The goal is to reach a level of 0.6% of GNP by 1995 and 0.7% by the end of the 1990s.

### 21.7.2 International Development Research Centre (IDRC)

IDRC was established in 1970 to initiate and encourage research focused on the problems of the world's developing regions; it fosters co-operation between developing nations as well as between the developed and the developing world. In its role as co-ordinator of international development research, it helps developing regions to build up research capabilities, skills and institutions to solve their own problems.

Projects are channelled through five program divisions: agriculture, food and nutrition sciences; health sciences; information sciences; social sciences; and co-operative programs,



supporting joint projects between Canadian and Third World research institutions. As of October 1986, IDRC had supported 2,822 projects in 102 countries.

A fellowship program with categories of awards for both Canadians and citizens of developing countries is designed to provide individuals with the opportunity to undertake training or research in various aspects of development.

IDRC is financed by the Parliament of Canada by means of an annual grant. Its status as a public corporation allows it to offer completely untied aid. IDRC is not an agent of the Canadian government and its officers and employees are not part of the public service of Canada. It is governed by an international autonomous board of governors; at least 11 of the governors including the chairman and vice-chairman must be Canadian citizens. To date the 10 other members have been appointed from other countries, with six among them from developing countries. The centre submits an annual report to the Canadian Parliament through the secretary of state for external affairs.

The centre maintains a close and co-operative relationship with CIDA whose president is usually a member of IDRC's board of governors.

### 21.7.3 CUSO

Founded in 1961, CUSO is an independent Canadian voluntary organization which works with communities and groups committed to development and social change both in Canada and the Third World. It recruits Canadians skilled in trades, business, agriculture and renewable resource occupations, health, education, technology and community development for two-year postings in the Third World; these workers share their skills and gain personally through a broadened outlook. Committed to the economic and social advancement of the poorest segments of Third World societies, CUSO also provides funding and other support on a partnership basis to self-help and community development projects. Within Canada, CUSO is involved in public education concerning the causes of Third World under-development.

CUSO receives core funding from CIDA; other contributions come from provincial governments, individuals, church groups, professional and service organizations, unions, businesses and corporations.

### 21.7.4 CESO

The Canadian Executive Service Overseas (CESO) was created in 1967. The organization

sends recently retired Canadian volunteers with expertise in business and technology to share their knowledge with people in business and organizations in the developing world. In 1969 the program was expanded to send CESO volunteers to various parts of Canada to assist Canadian native people.

CIDA provides CESO with core funding. Other contributions have been made by more than 300 Canadian corporations, overseas clients, the Department of Indian and Northern Affairs, and other provincial/territorial governments.

## 21.8 Defence

### 21.8.1 Department of National Defence

The Department of National Defence was created by the National Defence Act, 1922. The Defence Minister controls and manages the Canadian forces and all matters relating to national defence establishments. The Minister is responsible for presenting to Cabinet matters of major defence policy for which Cabinet direction is required. The Minister continues to be responsible for certain civil emergency powers, duties and functions.

The chief of the defence staff is the senior military adviser to the Minister and is charged with the control and administration of the Canadian forces. The chief of the defence staff is responsible for the effective conduct of military operations and the readiness of the forces to meet the commitments assigned to the department.

### 21.8.2 NATO and North America

Canada was one of the 12 original signatories of the North Atlantic Treaty Organization (NATO) in 1949. Successive Canadian governments have reaffirmed the view that Canada's security remains linked to that of Europe and the United States. Canada is committed to the principle of collective defence and remains convinced of the importance of NATO's role in reducing, and eventually removing, the underlying causes of potential East-West conflict through negotiation, reconciliation and settlement. In addition to its role as an alliance for defence through deterrence, NATO is a major forum for political consultation among its members.

Canada's membership in NATO continues to be a factor in the development of its political, economic and scientific-technological relations with Europe, by which Canada seeks to balance its relations with the United States. The alliance obliges both Canada and the United States to

maintain a deep interest in European affairs and exemplifies the interdependence of Europe and North America.

NATO security also extends to North America where, through a series of bilateral arrangements between Canada and the US, Canada contributes to the protection of the North American area of NATO through the auspices of the Canada-United States Regional Planning Group, one of the original four planning groups established by the Defence Committee in 1949.

**North American defence.** The foundations for the mutual defence of North America are rooted in the Ogdensburg Declaration of 1940 and the formation of the Permanent Joint Board of Defence in that same year which established the framework for Canada/United States defence co-operation. Through a series of bilateral agreements signed over the past 46 years, Canada participates with the United States in the protection of the North American landmass, off-shore waters and aerospace approaches. The best known of these agreements is the North American Air Defence (NORAD) agreement in effect since 1959. Under this agreement, the Commander-in-Chief NORAD is responsible to the United States joint chiefs of staff and the Canadian chief of the defence staff. Through the agreement, Canada participates in aerospace surveillance and warning, active air defence, command and control, and measures designed to protect the deterrent capacity of the United States.

### 21.8.3 The Canadian forces

The Canadian forces are organized to reflect the major commitments assigned by the government. All forces devoted to a primary mission are grouped under a single commander. Specifically, the Canadian forces are formed into National Defence Headquarters and five major commands reporting to the chief of the defence staff.

**Maritime command.** All Canadian maritime forces are under the commander, maritime command (headquarters, Halifax, NS). The commander, maritime forces Pacific (headquarters, Esquimalt, BC) exercises operational control over assigned maritime forces in the Pacific. The role of maritime command is the surveillance and control of the sea approaches of the three oceans bordering Canada, and the provision of combat-ready ships in support of Canada's commitment to NATO and continental defence. The commander, maritime command is also the commander of the Canadian Atlantic sub-area of the western Atlantic command, under the supreme

commander, allied command Atlantic. Additional roles are to support Canadian military operations as required; to conduct search and rescue operations in the Halifax and Victoria search and rescue regions (the Atlantic provinces, British Columbia and the surrounding ocean areas); and to carry out regional commitments in these areas.

Increased surface and air resources have been devoted to the surveillance and control of waters of Canadian economic interest, particularly in support of Fisheries and Oceans Canada. A multitude of ships are identified each year and many are boarded by officers of Fisheries and Oceans Canada, assisted by Canadian military personnel.

**The naval reserve** is organized in 19 divisions across Canada and provides support for maritime command at sea and ashore.

**Mobile command.** The role of mobile command is to provide land forces trained and equipped for the protection of Canadian territory, to maintain operational readiness of combat formations in Canada required for overseas commitments, and to support United Nations or other peacekeeping operations.

The forces assigned include a brigade group in the West (headquarters, Calgary, Alta.) a brigade group in the East (headquarters, Valcartier, Que.) and a special service force consisting of air-portable elements (headquarters, Petawawa, Ont.). The command also provides troops to the United Nations force in Cyprus.

**The militia** is one of the oldest institutions in Canada, dating back to the late 17th century. Command of the militia is exercised by the commander, mobile command. Its role is to augment the regular forces in peace and war. The militia is organized under five area headquarters and 22 militia districts. There are a total of 117 major units and 14 minor units.

**Air command.** The role of air command is to provide operationally ready regular and reserve air forces to meet Canada's national, continental and international commitments, and to carry out regional commitments within the Prairie region — Saskatchewan, Alberta and Manitoba as well as the northwest part of Ontario. Air command (headquarters, Winnipeg, Man.) consists of the following functional groups: fighter group, air transport group, and maritime air group, 10 tactical air group, 14 training group, and air reserve group.

**Fighter group** (headquarters, North Bay, Ont.) provides the air defence forces required to enforce

Canadian sovereignty in national airspace and to meet Canada's commitment to continental defence under the NORAD agreement; to provide squadrons to meet the NATO North Flank commitment; to provide tactical fighter support to maritime command and mobile command; and to provide all operational fighter training.

**Air transport group** (headquarters, Trenton, Ont.) provides the Canadian forces with air transport which includes strategic airlift operations on a worldwide basis, tactical airlift in any area in the world and the operation of an air transport service. In addition, air transport group commands all primary air search and rescue forces for all regions of Canada.

**Maritime Air Group (MAG)**, (headquarters, Halifax, NS) is a component of air command. The group is responsible for management of all air resources engaged in northern patrol, maritime patrol, maritime surveillance, anti-submarine warfare and fisheries patrols.

The commander of maritime air group, responsible to the commander of air command, is under the operational control of the commander of maritime command while carrying out surveillance patrol and anti-submarine roles. A close working relationship between maritime command and maritime air group enables them to use a common operations centre.

The group conducts surveillance flights over Canada's coastal waters and the Arctic Archipelago. It also provides anti-submarine air forces as part of Canada's contribution to NATO.

**10 Tactical air group** with headquarters co-located with mobile command at St-Hubert, Que., operates all air resources engaged in the close support of the army. This involves helicopter fire support, reconnaissance and tactical transport over the battle area.

**14 Training group (14 TGP)** in Winnipeg, is responsible for aircrew selection, aircrew training to wings standard, junior leadership, survival and meteorological training. 14 TGP develops training policy for air command and is responsible for monitoring and evaluating all air command training.

**Air reserve group** comprises two wings, each with two tactical helicopter squadrons, in Montreal and Toronto and three other squadrons twinned with regular force units in Winnipeg, Edmonton and Summerside, PEI. Air reserve augmentation flights at nine different bases in Canada provide a cadre of trained personnel available for base establishment augmentation and for base expansion.

**Search And Rescue (SAR).** Search and rescue activities are co-ordinated from Victoria, Edmonton, Trenton and Halifax. Rescue co-ordination centres (RCCs) are manned by Canadian forces personnel with Canadian Coast Guard officers attached on liaison duties in all centres except Edmonton. Besides the aircraft that are specially equipped and manned for SAR duties, other aircraft across Canada are assigned periodically to augment these primary SAR resources.

**The Canadian forces training system.** The functions of the Canadian forces training system include the planning and conduct of all recruit, trades, specialist and officer classification training common to more than one command. This group also assumes the regional commitments for the central region (Ontario).

**Communication command.** This command maintains strategic communications for the forces and, in emergencies, for the federal and provincial governments. The command also provides points for interconnecting strategic and tactical networks. It also operates the major defence department automatic data processing centres.

A communication reserve assigned to Canadian forces communication command is composed of six communication regiments, 12 communication squadrons and three independent communication troops. They are located across Canada and often co-located with regular force communication units. The role of the communication reserve is to augment and support communication command and mobile command forces in peace and war.

**Canadian forces northern region.** The commander northern region is responsible for military matters and for co-ordinating and supporting the activities of forces when they are employed in the North. With headquarters at Yellowknife, NWT, and a headquarters detachment at Whitehorse, YT, the northern region encompasses Yukon and Northwest Territories, including the islands in Hudson Bay, James Bay and the Arctic Archipelago, and extends to the geographic North Pole. Its total area exceeds 3.9 million square kilometres, 40% of Canada's mass.

**Canadian forces (Europe).** With a role to provide combat-ready land and air forces for the defence of Central Europe, Canadian forces allocated to support NATO are located at Lahr and Baden Soellingen in the Black Forest region of the Federal Republic of Germany.

#### 21.8.4 Peacekeeping operations

Since World War II Canada has played a vital role in co-operation with the United Nations and



other international bodies in peacekeeping and the promotion of international security. Since 1947, approximately 79,000 Canadian servicemen and servicewomen have participated in 15 peace-restoring, peacekeeping and truce supervisory operations mounted by the United Nations and four truce supervisory or observer missions conducted outside the aegis of that world body. Excluding the Korean War period, the largest annual commitment of Canadian forces personnel to peacekeeping operations occurred in 1964-65 when approximately 2,600 servicemen were actively involved in seven missions.

The United Nations Force in Cyprus (UNFICYP) was established in 1964 with Canada providing one of the first contingents. In 1986, the Canadian contingent consisted of 515 regular and reserve force personnel.

In the Middle East, Canada has been involved in the United Nations Disengagement Observer force (UNDOF) on the Golan Heights primarily in communications, logistics and technical support; and the United Nations Truce Supervisory Organization (UNTSO) in Egypt, Syria, Israel, Lebanon and Jordan as military observers or on staff.

In Korea, Canada has an officer on a seven-nation advisory group as part of a United Nations military armistice commission.

Canadian participation in the United Nations military observer group in India-Pakistan is now limited to military airlift support in the twice-yearly move of headquarters between Srinagar and Rawalpindi.

In 1986, Canada joined the multinational force and observers in the Sinai. Canadian participation is 136 personnel in a rotary wing aviation unit and on the staff.

### 21.8.5 Military training assistance

From April 1982 to March 1984, the Canadian forces provided a three-person medical detachment to the Commonwealth military training team in Uganda. Under the military training assistance program, countries receiving training assistance, or negotiating with Canada for assistance, include Antigua, Barbados, Belize, Botswana, Cameroon, Ghana, Jamaica, Kenya, Malaysia, Nigeria, Oman, Sierra Leone, Singapore, Sudan, Tanzania, Thailand, Trinidad and Tobago, Uganda, Zambia and Zimbabwe.

Canada provides training facilities for some NATO countries on a cost-recovery basis. British military forces were trained in Canada under the terms of a 10-year agreement signed in 1971. A

similar agreement was signed with the Federal Republic of Germany in 1973.

## 21.9 Emergency planning

Emergency Preparedness Canada (EPC) evolved from the former Emergency Planning Canada. The name change on July 1, 1986 more fittingly reflects its mandate: to co-ordinate the federal response to emergencies and encourage emergency preparedness to protect the health, life and property of Canadians. EPC reports directly to the Minister of National Defence and operates under the authority of the Emergency Planning Order (PC 1981-1305, May 21, 1981).

**Canadian emergency response system.** When disaster strikes, the individual is the first line of defence. If the disaster is so severe that individuals cannot be expected to cope on their own, they request aid from their municipal services. If the emergency gets beyond local resources, the provincial government may be asked for assistance. Although ready to assist at any time, the government of Canada normally becomes involved only when a provincial government asks for assistance. The exception is when the emergency or some aspect of it falls within the jurisdiction of the federal government.

Usually, EPC knows about a disaster before federal help is requested; its situation centre in Ottawa monitors emergencies across Canada. This ensures that the government is prepared to assist when needed. Depending on the emergency, the most appropriate department takes the lead on behalf of the government of Canada, with other departments providing support. Every federal department, agency and Crown corporation must plan and prepare to take on emergency responsibilities that relate to their normal functions and resources. For example, Transport Canada plans for assisting in possible disasters involving trains, ships and aircraft; Health and Welfare Canada plans for emergencies involving disease or injury; the Canadian Armed Forces plan and prepare to make their varied capabilities available when needed. EPC planners work with departmental officials to ensure these plans are as effective and as up to date as possible.

**Federal/provincial co-operation.** The governments of the provinces, of the territories and of Canada work together in many areas of emergency preparedness. An EPC regional director in each provincial capital is in constant touch with provincial and territorial emergency officials to ensure a country-wide network of preparedness.



**Post-disaster financial aid.** In the wake of a major disaster a community or province may face heavy re-building costs. To help provincial governments with the financial burden of their relief measures, EPC administers, on behalf of the government of Canada, the disaster financial assistance arrangements. Since 1970, the government has paid out more than \$100 million in disaster relief to the provinces and territories. Generally, payments are made to help restore personal property, farmsteads, small businesses and public works to their pre-disaster condition.

**Joint Emergency Preparedness Program.** To foster planning and promote national preparedness, EPC administers the Joint Emergency Preparedness Program (JEPP) on behalf of the federal government. Roughly \$6 million is spent annually to help provinces and territories with emergency preparedness projects.

**Training and education.** EPC gives or sponsors more than 100 courses, conferences and seminars a year at the Canadian emergency preparedness college in Arnprior, Ont. Each year, about 2,500 representatives from all levels of government and the private sector are trained in the techniques of emergency planning and management. Most courses run for one week, with topics ranging from emergency health and welfare services to transportation of dangerous goods. EPC pays

travel and living expenses from the time course participants leave home until they return.

**Research.** EPC sponsors research related to emergency preparedness. Projects range from an investigation of computers and their potential application to emergency planning, to an assessment of the economic impact should there be an interruption in Canada's supply of strategic minerals.

**Key programs.** EPC participates in various ways in a number of programs aimed at improving national preparedness for emergencies. Some examples are as follows. Continuity of government — the maintenance of a string of emergency operations centres across the country, all of them protected against radioactive fallout and interlinked by communications systems. Vital points — a program to identify vital facilities, plants and services that would have to be protected if national security were threatened. Essential records — a program to identify and preserve those records that would be essential for government operations during and after a nuclear attack. NATO — planning activities and exercises related to the civil side of alliance preparedness. Canada/US co-operation — maintaining close working relationships with Canada's counterpart organization in the United States, the Federal Emergency Management Agency.

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- 21.7.1 Public Affairs Branch, Canadian International Development Agency.
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- 21.7.4 Canadian Executive Service Overseas.
- 21.8 – 21.8.5 Parliamentary Affairs Division, Department of National Defence.
- 21.9 Public Information Planning and Services Division, Emergency Preparedness Canada.

## TABLES

...	not available	e	estimate
...	not appropriate or not applicable	p	preliminary
—	nil or zero	r	revised
--	too small to be expressed	certain tables may not add due to rounding	

### 21.1 Personnel at Canadian diplomatic posts abroad

Geographic region and program <sup>1</sup>	Program personnel		Support personnel		Total, all personnel
	Canada-based	Locally engaged	Canada-based	Locally engaged	
Geographic region					
International organizations	49	—	63	40	152
United States	166	116	83	358	723
Africa and Middle East	168	38	127	644	977
Latin America and Caribbean	152	62	80	451	745
Asia and Pacific	241	97	124	867	1,329
Europe	274	130	269	943	1,616
Total	1,050	443	746	3,303	5,542
Program					
Policy planning and co-ordination	62.4	0.5	30.9	15.8	109.6
Trade and industrial development	213.6	216.8	34.0	290.6	755.0
Tourism	29.3	42.2	0.3	44.7	116.5
Political relations	121.9	3.5	72.6	20.7	218.7
Economic relations	104.4	6.0	46.4	17.8	174.6
International development assistance	96.2	19.4	20.1	56.2	191.9
Culture, public affairs and information	55.4	51.4	16.2	173.4	269.4
Immigration and social affairs	197.1	89.9	13.9	435.2	736.1
Consular affairs	39.1	6.1	22.7	112.7	180.6
Administration	125.7	6.2	463.8	2,059.5	2,655.2
Other government departments	4.9	1.0	25.1	76.4	107.4
Total	1,050.0	443.0	746.0	3,303.0	5,542.0

<sup>1</sup> Deployment of personnel abroad.

### 21.2 Total imports, exports and trade balance on a balance-of-payments basis, 1971-86

Year	Imports		Exports <sup>1</sup>		Trade balance \$'000,000	Ratio of exports to imports %
	Value \$'000,000	Percentage change from previous year	Value \$'000,000	Percentage change from previous year		
1971	15,314	...	17,782	...	2,468	116.1
1972	18,272	19.3	20,222	13.7	1,950	110.7
1973	22,726	24.4	25,649	26.8	2,923	112.9
1974	30,903	36.0	32,738	27.6	1,835	105.9
1975	33,962	9.9	33,616	2.7	-346	99.0
1976	36,608	7.8	38,166	13.5	1,558	104.3
1977	41,523	13.4	44,495	16.6	2,972	107.2
1978	49,048	18.1	53,361	19.9	4,313	108.8
1979	61,157	24.7	65,582	22.9	4,425	107.2
1980	67,903	11.0	76,681	16.9	8,778	112.9
1981	77,140	13.6	84,432	10.1	7,292	109.5
1982	66,739	-13.5	84,560	0.2	17,821	126.7
1983	73,054	9.5	90,702	7.3	17,648	124.2
1984	91,493	25.2	112,219	23.7	20,726	122.7
1985	102,783	12.3	120,258	7.2	17,475	117.0
1986	110,498	7.5	120,631	0.3	10,133	109.2

<sup>1</sup> Includes domestic exports and re-exports.

**21.3 Imports into Canada from all countries on a balance-of-payments basis, 1982-86 and percentage of 1986 total (million dollars)**

Major commodity grouping	1982	1983	1984	1985	1986	Percentage of 1986 total
Agricultural and fishing products						
Fruits and vegetables	1,873	1,880	2,169	2,208	2,374	2.1
Other agricultural and fishing products	3,566	3,666	4,365	4,241	4,853	4.4
Sub-total, agricultural and fishing products	5,438	5,546	6,534	6,450	7,227	6.5
Energy products						
Crude petroleum	4,941	3,267	3,383	3,751	2,756	2.5
Other energy products	1,795	1,894	2,750	2,594	2,369	2.1
Sub-total, energy products	6,737	5,161	6,133	6,344	5,125	4.6
Forestry products	511	732	822	856	1,043	0.9
Industrial goods and materials						
Metal and metal ores	4,337	4,407	4,904	6,047	5,934	5.4
Chemicals and plastics	3,586	4,393	5,212	5,445	5,840	5.3
Other industrial goods and materials	4,796	5,502	6,667	7,215	7,713	7.0
Sub-total, industrial goods and materials	12,719	14,301	16,784	18,707	19,488	17.6
Machinery and equipment						
Industrial and agricultural machinery	7,345	6,806	8,374	9,664	10,928	9.9
Aircraft and other transportation equipment	3,127	3,295	3,680	3,822	4,397	4.0
Office machines and equipment	2,867	3,113	4,409	4,194	4,448	4.0
Other machinery and equipment	6,366	7,612	9,934	10,403	11,465	10.4
Sub-total, machinery and equipment	19,705	20,825	26,397	28,083	31,237	28.3
Automotive products						
Passenger autos and chassis	4,043	6,208	7,890	11,292	12,240	11.1
Trucks and other motor vehicles	1,380	1,698	2,667	3,176	3,562	3.2
Motor vehicle parts	9,222	10,838	15,163	17,245	17,569	15.9
Sub-total, automotive products	14,645	18,744	25,719	31,713	33,371	30.2
Other consumer goods						
Apparel and footwear	1,452	1,710	2,209	2,304	2,859	2.6
Miscellaneous consumer goods	5,916	6,639	7,974	8,106	9,107	8.2
Sub-total, other consumer goods	7,368	8,348	10,183	10,409	11,966	10.8
Special transactions - trade	1,013	981	1,534	1,631	1,774	1.6
Unallocated BOP adjustments	-1,399	-1,584	-2,613	-1,409	-734	-0.7
Total, imports	66,739	73,054	91,493	102,783	110,498	100.0

**21.4 Total exports from Canada to all countries on a balance-of-payments basis, 1982-86 and percentage of 1986 total (million dollars)**

Major commodity grouping	1982	1983	1984	1985	1986	Percentage of 1986 total
Agricultural and fishing products						
Wheat	4,285	4,678	4,626	3,834	2,863	2.4
Other agricultural and fishing products	6,761	6,613	7,258	6,921	8,055	6.7
Sub-total, agricultural and fishing products	11,046	11,290	11,884	10,755	10,917	9.0
Energy products						
Crude petroleum	2,747	3,499	4,396	5,970	3,790	3.1
Natural gas	4,814	3,917	3,918	4,011	2,550	2.1
Other energy products	4,922	5,377	6,428	6,755	5,037	4.2
Sub-total, energy products	12,482	12,793	14,742	16,736	11,377	9.4

## 21.4 Total exports from Canada to all countries on a balance-of-payments basis, 1982-86 and percentage of 1986 total (million dollars) (concluded)

Major commodity grouping	1982	1983	1984	1985	1986	Percentage of 1986 total
Forestry products						
Lumber and sawmill products	3,742	5,045	5,591	5,905	6,343	5.3
Wood pulp and other wood products	3,205	3,042	3,895	3,389	4,048	3.4
Newsprint and other paper and paperboard	4,994	4,982	6,048	6,694	7,199	6.0
Sub-total, forestry products	11,941	13,070	15,533	15,988	17,590	14.6
Industrial goods and materials						
Metal ores	3,581	3,378	4,300	4,142	4,138	3.4
Chemicals, plastics and fertilizers	3,737	4,152	4,953	5,006	4,960	4.1
Metals and alloys	6,559	6,829	7,615	7,889	8,536	7.1
Other industrial goods and materials	3,630	3,465	4,605	5,283	5,294	4.4
Sub-total, industrial goods and materials	17,507	17,824	21,472	22,320	22,928	19.0
Machinery and equipment						
Industrial and agricultural machinery	3,665	3,402	4,013	4,129	4,425	3.7
Aircraft and other transportation equipment	3,349	2,686	3,188	3,589	4,775	4.0
Other machinery and equipment	5,442	6,015	8,173	9,248	9,690	7.9
Sub-total, machinery and equipment	12,455	12,103	15,374	16,966	18,890	15.6
Automotive products						
Passenger autos and chassis	7,153	9,337	13,539	15,743	17,416	14.4
Trucks and other motor vehicles	4,266	4,447	5,791	6,249	5,549	4.6
Motor vehicle parts	5,400	7,493	10,105	11,216	11,393	9.4
Sub-total, automotive products	16,819	21,277	29,435	33,207	34,358	28.5
Other consumer goods	1,402	1,532	1,882	1,999	2,387	2.0
Special transactions trade	278	233	432	397	344	0.3
Unallocated BOP adjustments	631	579	1,466	1,890	1,841	1.5
Total, exports	84,560	90,702	112,219	120,258	120,631	100.0

## 21.5 Trade of Canada with principal trading areas on a balance-of-payments basis, 1982-86

Item and year	United States		United Kingdom		Other EEC countries <sup>1</sup>		Japan		Other countries	
	Value \$'000,000	%	Value \$'000,000	%	Value \$'000,000	%	Value \$'000,000	%	Value \$'000,000	%
Imports										
1982	47,072	70.5	1,939	2.9	3,752	5.6	3,552	5.3	10,424	15.6
1983	52,677	72.1	1,732	2.4	4,087	5.6	4,355	6.0	10,193	14.0
1984	65,890	72.0	2,293	2.5	5,843	6.4	5,476	6.0	11,991	13.1
1985	73,641	71.6	3,104	3.0	7,003	6.8	6,061	5.9	12,974	12.6
1986	76,809	69.5	3,622	3.3	9,010	8.2	7,567	6.8	13,490	12.2
Exports										
1982	58,074	68.7	2,695	3.2	4,777	5.6	4,788	5.7	14,226	16.8
1983	66,329	73.1	2,509	2.8	4,197	4.6	4,911	5.4	12,756	14.1
1984	85,026	75.8	2,493	2.2	4,510	4.0	5,971	5.3	14,219	12.7
1985	94,346	78.5	2,371	2.0	4,358	3.6	5,933	4.9	13,250	11.0
1986	93,567	77.6	2,728	2.3	5,330	4.4	6,069	5.0	12,937	10.7

<sup>1</sup> Other EEC, i.e., EEC countries excluding the United Kingdom. Prior to 1986, Portugal and Spain were not included in the EEC.



## 21.6 Trade by section, with principal trading areas on a customs basis, 1986

Item	United States %	United Kingdom %	Other EEC countries <sup>1</sup> %	Japan %	Other countries %
Imports					
Live animals	94.7	0.6	2.1	—	2.6
Food, feed, beverages and tobacco	49.6	3.4	13.0	1.2	32.8
Crude materials, inedible	47.2	19.1	1.8	0.9	31.1
Fabricated materials, inedible	68.8	3.1	12.1	3.4	12.6
End products, inedible	72.0	1.9	7.2	8.7	10.2
Exports <sup>2</sup>					
Live animals	88.1	0.8	1.6	0.8	8.7
Food, feed, beverages and tobacco	41.3	4.2	6.3	12.4	35.7
Crude materials, inedible	53.7	4.2	9.3	17.2	15.6
Fabricated materials, inedible	77.9	2.9	6.0	4.5	8.7
End products, inedible	89.5	0.9	2.0	0.6	7.0

<sup>1</sup> Other EEC, i.e., EEC countries excluding the United Kingdom. Prior to 1986, Portugal and Spain were not included in the EEC.

<sup>2</sup> Includes domestic exports and re-exports.

## 21.7 Measures of bilateral trade between Canada and the United States, 1981-85 (billions of Canadian dollars)

Year	Southward trade			Northward trade			Trade balance		
	Canadian exports <sup>1</sup>	US imports <sup>2</sup>	Reconciled data	Canadian imports <sup>3</sup>	US exports <sup>4</sup>	Reconciled data	Canada	US	Reconciled data
1981	55.8	55.6	56.7	54.1	47.5	53.6	1.4	8.2	3.4
1982	57.8	57.3	59.0	48.0	41.6	47.1	9.8	15.7	12.1
1983	66.5	64.3	67.6	54.3	47.2	53.1	12.2	17.1	14.4
1984	85.2	86.1	86.9	69.1	60.2	66.9	16.1	25.9	20.0
1985	93.2	94.2	95.0	74.6	64.5	73.5	18.6	29.7	21.5

<sup>1</sup> Canadian exports to the US as recorded by Canada.

<sup>2</sup> Canadian exports to the US as recorded by the US.

<sup>3</sup> US exports to Canada as recorded by Canada.

<sup>4</sup> US exports to Canada as recorded by the US.

## 21.8 Price and volume indexes of trade in Canada by section, on a balance-of-payments basis, 1982-86 (1981 = 100)

Item	Current weighted price indexes									
	Imports					Domestic exports				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
Index										
Food, feed, beverages and tobacco	98.0	95.2	101.5	99.6	106.9	96.9	94.1	96.9	98.6	92.5
Crude materials, inedible	95.7	89.7	94.4	93.6	70.3	96.1	90.9	90.9	88.2	69.8
Fabricated materials, inedible	101.5	101.2	105.7	103.3	102.2	97.9	97.7	103.8	102.2	101.4
End products, inedible	106.2	107.0	111.7	117.3	122.6	108.0	111.3	115.6	121.4	126.7
All sections	103.3	103.2	108.3	111.3	112.5	100.9	100.8	105.2	106.5	104.0
Percentage change from previous year										
Food, feed, beverages and tobacco	-2.0	-2.9	6.6	-1.9	7.3	-3.1	-2.9	3.0	1.8	-6.2
Crude materials, inedible	-4.3	-6.3	5.2	-0.8	-24.9	-3.9	-5.4	—	-3.0	-20.9
Fabricated materials, inedible	1.5	-0.3	4.4	-2.3	-1.1	-2.1	-0.2	6.2	-1.5	-0.8
End products, inedible	6.2	0.8	4.4	5.0	4.5	8.0	3.1	3.9	5.0	4.4
All sections	3.3	-0.1	4.9	2.8	1.1	0.9	-0.1	4.4	1.2	-2.3

## 21.8 Price and volume indexes of trade in Canada by section, on a balance-of-payments basis, 1982-86 (1981 = 100) (concluded)

Item	Fixed weight volume indexes									
	Imports					Domestic exports				
	1982	1983	1984	1985	1986	1982	1983	1984	1985	1986
<b>Index</b>										
Food, feed, beverages and tobacco	97.4	101.6	113.7	115.7	121.6	109.2	115.0	113.0	100.3	110.8
Crude materials, inedible	71.8	62.3	66.2	67.0	77.0	104.3	107.1	130.4	148.9	151.3
Fabricated materials, inedible	82.8	95.0	109.3	125.3	138.4	90.5	98.0	108.2	113.9	118.8
End products, inedible	85.4	97.3	121.2	130.1	135.8	104.4	115.3	148.4	158.0	161.1
All sections	83.8	91.7	109.5	119.7	128.4	99.2	106.5	126.3	133.8	137.9
<b>Percentage change from previous year</b>										
Food, feed, beverages and tobacco	-2.6	4.3	11.9	1.8	5.1	9.2	5.3	-1.7	-11.2	10.5
Crude materials, inedible	-28.2	-13.2	6.3	1.2	14.9	4.3	2.7	21.8	14.2	1.6
Fabricated materials, inedible	-17.2	14.7	15.1	14.6	10.5	-9.5	8.3	10.4	5.3	4.3
End products, inedible	-14.6	13.9	24.6	7.3	4.4	4.4	10.4	28.7	6.5	2.0
All sections	-16.2	9.4	19.4	9.3	7.3	-0.8	7.4	18.6	5.9	3.1

## 21.9 Value of imports into Canada from all countries on a customs basis, by section and commodity, 1982-86 (million dollars)

Section and commodity	1982	1983 <sup>1</sup>	1984	1985	1986
Live animals	136.1	132.2	94.3	109.3	158.7
Food, feed, beverages and tobacco					
Meat, fresh, chilled or frozen	286.3	311.1	399.4	386.7	413.0
Other meat and meat preparations	39.6	44.8	37.7	40.7	38.3
Fish and marine animals	351.8	417.6	487.5	493.5	613.0
Dairy produce, eggs and honey	118.3	115.2	135.0	135.1	157.4
Indian corn, shelled	114.9	67.8	99.3	94.2	97.4
Other cereals and cereal preparations	192.4	215.8	281.1	255.6	263.9
Bananas and plantains, fresh	119.7	120.8	124.1	135.4	152.2
Grapes, fresh	140.6	151.2	164.4	168.0	182.0
Oranges, mandarins and tangerines, fresh	141.3	121.1	153.8	154.4	174.3
Other fresh fruits and berries	307.0	313.2	354.1	394.4	445.5
Fruits, dried or dehydrated	80.5	80.9	86.0	74.3	76.6
Orange juice and concentrates	153.5	154.0	196.7	192.9	144.8
Other fruit juices and concentrates	68.0	58.1	72.3	78.2	93.9
Fruits and products, canned	88.5	80.4	107.6	104.8	104.1
Other fruits and fruit preparations	42.1	38.3	40.8	41.3	53.0
Nuts, except oil nuts	102.2	109.7	132.7	125.8	151.7
Tomatoes, fresh	84.3	96.6	99.5	107.4	116.3
Other fresh vegetables	368.5	388.9	446.1	441.5	490.5
Other vegetables and vegetable preparations	176.8	166.8	190.7	189.9	188.7
Raw sugar	253.5	201.7	189.5	153.7	217.3
Refined sugar, molasses and syrups	36.6	44.9	56.8	67.7	85.8
Sugar preparations and confectionery	112.1	120.9	167.8	211.0	204.0
Cocoa and chocolate	104.3	107.4	168.8	159.3	170.1
Coffee	406.8	401.3	474.2	477.8	648.7
Tea	63.1	68.5	102.7	88.5	86.6
Other foods and materials for foods	233.7	271.7	318.4	313.1	367.4
Oilseed cake and meal	108.5	127.4	165.9	145.0	171.2
Other fodder and feed	78.7	78.3	87.0	96.3	115.6
Distilled alcoholic beverages	156.9	131.9	164.7	153.2	173.6
Other beverages	221.0	201.6	265.3	287.3	310.1
Tobacco	50.0	63.0	42.3	32.4	34.7
Total, food, feed, beverages and tobacco	4,801.7 <sup>1</sup>	4,870.8	5,812.0	5,799.5	6,541.2

## 21.9 Value of imports into Canada from all countries on a customs basis, by section and commodity, 1982-86 (million dollars) (continued)

Section and commodity	1982	1983 <sup>1</sup>	1984	1985	1986
Crude materials, inedible					
Fur skins, undressed					
Other crude animal products	136.7	135.4	157.1	197.5	185.7
Soybeans	58.4	81.5	91.7	71.2	80.6
Other oilseeds, oil nuts and oil kernels	128.1	95.9	98.6	69.7	39.6
Rubber and allied gums, natural	68.5	72.9	81.2	73.8	85.3
Other crude vegetable products	81.5	110.3	140.5	118.1	107.9
Crude wood materials	142.3	155.2	177.8	190.1	209.5
Wool and fine animal hair	94.2	121.6	162.5	182.2	225.8
Cotton	34.7	35.6	37.8	41.3	45.1
Man-made fibres	80.4	108.6	129.6	88.5	85.1
Other textile fibres	113.2	138.5	132.3	119.4	124.9
Iron ores and concentrates	2.1	1.8	1.9	2.7	2.7
Scrap iron and steel	192.3	233.2	292.7	349.1	294.5
Aluminum ores, concentrates and scrap	35.1	51.9	106.1	78.0	66.1
Other metals in ores, concentrates and scrap	385.1	387.5	500.0	477.0	519.1
Coal	869.7	978.2	955.2	754.6	1,077.0
Crude petroleum	931.5	841.3	1,093.5	886.7	744.4
Other crude bituminous substances	4,979.3	3,319.2	3,375.6	3,695.2	2,884.6
Abrasives, natural	1.8	1.4	1.6	1.8	2.0
Phosphate rock	18.5	18.3	21.7	21.8	23.7
Other crude non-metallic minerals	101.5	97.9	121.5	111.8	99.5
Other waste and scrap materials	158.4	149.0	178.7	199.4	221.8
	77.5	105.6	136.2	122.2	142.7
Total, crude materials, inedible	8,690.8	7,241.0	7,994.1	7,852.1	7,267.8
Fabricated materials, inedible					
Leather and leather fabricated materials					
Rubber fabricated materials	95.6	130.3	152.4	148.4	178.8
Lumber	141.2	173.9	228.0	233.4	238.4
Veneer	176.6	281.1	281.5	280.8	360.0
Plywood and wood building boards	20.0	32.9	37.7	36.4	40.3
Other wood fabricated materials	40.9	75.8	64.4	76.2	108.7
Wood pulp and similar pulp	91.3	133.6	146.9	154.1	171.2
Paper and paperboard	88.1	86.5	129.3	131.9	138.3
Cotton yarn and thread	456.5	588.1	762.7	809.7	924.4
Man-made fibre yarn and thread	27.4	40.4	42.3	39.5	45.3
Other yarn and thread	140.8	201.9	200.0	212.5	251.0
Cordage, twine and rope	97.7	125.1	151.7	175.0	207.0
Broad woven fabrics, wool and hair	30.3	29.7	30.1	28.7	32.6
Broad woven fabrics, cotton	51.8	56.0	78.4	85.5	93.5
Broad woven fabrics, man-made	116.0	137.6	170.2	222.8	234.2
Broad woven fabrics, mixed fibres	130.3	152.7	167.3	181.8	225.3
Other broad woven fabrics	220.9	265.2	319.6	332.2	373.3
Coated or impregnated fabrics	29.4	40.1	44.8	41.9	42.0
Other textile fabricated materials	138.1	189.6	245.8	263.0	253.2
Vegetable oils and fats, except essential oils	209.7	244.3	284.3	302.8	347.2
Other oils, fats, waxes, extracts and derivatives	64.4	78.0	119.6	103.6	64.4
Inorganic chemicals	101.4	113.7	134.1	126.0	133.2
Organic chemicals	369.7	410.5	497.7	509.3	523.9
Fertilizers and fertilizer materials	1,019.1	1,266.4	1,464.7	1,508.6	1,615.6
Synthetic and reclaimed rubber	143.1	184.3	206.0	205.9	198.7
Plastics materials, not shaped	138.8	161.7	207.1	218.3	234.9
Plastic film and sheet	553.1	751.4	842.1	886.6	976.1
Other plastics, basic shapes and forms	208.3	268.5	331.1	377.4	425.6
Dyestuffs, except dyeing extracts	137.3	181.3	264.4	290.8	324.7
Pigments, lakes and toners	62.6	76.2	72.7	66.5	80.8
Paints and related products	51.9	81.1	99.9	106.1	131.4
Other chemical products	84.6	111.3	149.1	173.6	184.2
Fuel oil	817.9	899.8	1,077.8	1,100.1	1,142.5
Lubricating oils and greases	314.7	409.8	962.4	851.1	733.9
Coke of petroleum and coal	56.1	62.3	81.3	76.9	74.1
Other petroleum and coal products	120.7	135.3	163.9	176.5	179.1
Bars and rods, steel	370.6	443.8	447.3	578.6	636.0
Plate, sheet and strip, steel	143.1	160.3	239.4	225.9	228.1
Structural shapes, steel and sheet piling	404.5	412.9	545.9	789.6	721.4
Pipes and tubes, iron and steel	67.8	77.4	108.5	111.1	99.8
Wire and wire rope, iron and steel	365.8	246.2	323.8	447.7	288.6
Other iron and steel and alloys	58.8	70.7	89.6	103.5	108.4
Aluminum, including alloys	197.7	206.3	334.1	330.1	393.9
Copper and alloys	366.6	438.2	714.6	694.2	765.5
Nickel and alloys	139.4 <sup>1</sup>	176.1	192.4	184.3	205.1
Precious metals, including alloys	66.4	52.1	63.8	69.5	68.2
Tin, including alloys	878.4	1,227.3	1,111.5	1,465.9	1,869.8
Other non-ferrous metals and alloys	55.8 <sup>1</sup>	60.8	66.6	60.9	38.7
Bolts, nuts and screws	90.1	94.3	109.3	126.3	126.6
Other basic hardware	179.6	198.6	287.7	320.9	330.3
Chains	262.2	314.5	401.3	448.2	486.0
Valves	36.7	38.8	54.4	51.0	52.8
Pipe fittings	237.7	171.0	220.5	282.5	259.2
Other metal fabricated basic products	148.6	119.7	129.2	154.6	141.8
	299.0	328.1	344.5	334.9	351.5

## 21.9 Value of imports into Canada from all countries on a customs basis, by section and commodity, 1982-86 (million dollars) (continued)

Section and commodity	1982	1983 <sup>f</sup>	1984	1985	1986
Fabricated materials, inedible (cont'd)					
Clay bricks, clay tiles and refractories	152.0	180.3	236.9	250.6	282.6
Sheet and plate glass	38.7	44.2	42.4	50.5	54.3
Other glass basic products	127.3	138.6	156.0	191.9	202.2
Abrasive basic products	70.2	85.2	110.0	113.0	122.5
Natural and synthetic gem stones	113.8	151.7	153.1	191.0	202.7
Other non-metallic mineral basic products	141.1	132.1	174.7	239.4	250.7
Electricity	5.3	2.5	12.9	8.1	9.2
Other fabricated materials, inedible	231.4	266.6	333.3	385.4	395.4
Total, fabricated materials, inedible	11,794.9 <sup>f</sup>	14,014.7	17,214.7	18,737.4	19,979.4
End products, inedible					
Machinery					
Engines and turbines, diesel and general purpose	98.3	101.3	126.2	131.7	139.2
Other engines and turbines, general purpose	252.7	321.5	228.3	293.8	255.7
Electric generators and motors	316.3	273.0	335.2	364.4	403.0
Bearings	203.2	208.4	292.0	300.0	337.5
Other mechanical power transmission equipment	217.4	187.8	255.8	266.0	285.3
Compressors, blowers and vacuum pumps	175.6	121.1	150.3	188.7	184.3
Pumps, except oil well pumps	151.4	132.1	161.3	189.4	206.9
Packaging machinery	108.4	119.9	178.7	178.5	188.8
Other general purpose industrial machinery	322.8	307.6	313.2	383.4	587.2
Conveyors and conveying systems	70.5	66.4	74.6	89.6	125.9
Elevators and escalators	21.8	22.0	30.4	30.6	38.3
Industrial trucks, tractors, trailers and stackers	83.9	92.8	164.1	197.5	217.6
Hoisting machinery	152.6	87.7	104.8	156.1	173.4
Other materials handling equipment	69.8	126.4	185.8	183.2	251.6
Drilling machinery and drill bits	483.3	347.7	347.2	477.0	245.2
Power shovels	144.6	173.2	209.5	300.6	271.5
Bulldozing and similar equipment	43.0	31.7	40.7	47.5	46.4
Front-end loaders	128.5	174.3	269.9	331.2	370.0
Other excavating machinery	90.4	88.0	135.3	184.0	250.1
Mining, oil and gas machinery	240.4	204.7	255.0	314.0	277.4
Construction and maintenance machinery	149.3	146.1	185.2	229.8	291.4
Machine tools, metalworking	325.5	259.3	372.0	517.1	701.9
Welding apparatus and equipment	70.0	91.9	81.5	116.9	184.9
Rolling mill machinery	107.1	53.3	66.3	61.4	98.2
Other metalworking machinery	256.6	237.2	294.5	337.3	442.6
Pulp and paper industries machinery	197.7	140.2	190.4	340.0	350.2
Printing presses	94.0	114.8	186.6	184.7	221.6
Other printing machinery and equipment	106.6	107.1	151.8	172.3	205.4
Spinning, weaving and knitting machinery	73.1	70.6	81.6	89.9	113.4
Other textile industries machinery	79.5	96.5	115.6	115.4	142.1
Food, beverages and tobacco industries machinery	149.4	157.7	188.0	187.5	221.3
Plastics and chemical industry	198.2	182.8	230.3	308.9	369.8
Other special industry machinery	474.6	446.7	602.2	659.3	979.2
Soil preparation, seeding and fertilizing machinery	125.0	101.4	133.9	113.8	102.2
Combine reaper-threshers	287.3	205.4	238.4	218.3	255.8
Other haying and harvesting machinery	127.5	110.2	146.6	138.2	154.0
Other agricultural machinery and equipment	228.0	210.0	225.5	246.2	266.6
Wheel tractors, new	582.7	550.7	581.9	574.6	512.0
Track-laying tractors and used tractors	61.1	72.3	82.1	120.4	129.1
Tractor engines and tractor parts	276.5	264.1	360.9	327.4	307.8
Sub-total, machinery	7,344.6	6,805.9	8,373.6	9,665.6	10,905.2
Transportation and communications equipment					
Railway and street railway rolling stock	218.1	138.4	223.2	301.1	441.1
Passenger automobiles and chassis	4,043.0	6,207.9	7,890.0	10,774.2	12,061.7
Trucks, truck tractors and chassis	934.8	1,169.8	2,035.9	2,558.6	2,947.2
Other motor vehicles	445.6	528.5	630.7	550.5	599.8
Motor vehicle engines	1,275.5	1,402.9	1,868.1	2,137.5	2,486.7
Motor vehicle engine parts	481.6	662.2	963.6	979.1	843.3
Motor vehicle parts, except engines	7,943.7	9,314.7	12,747.8	14,500.7	14,729.0
Marine engines and parts	164.8	160.7	221.1	221.2	274.7
Ships, boats and parts, except engines	118.9	618.7	420.9	187.5	186.0
Aircraft, complete with engines	601.0	808.2	865.0	1,095.3	1,126.5
Aircraft engines and parts	374.7	456.4	597.1	659.2	706.7
Aircraft parts, except engines	547.2	550.2	755.3	1,023.6	1,196.1
Other transportation equipment	331.6	471.9	692.6	584.5	595.9
Telephone and telegraph equipment	164.5	195.9	269.9	287.3	315.6
Televisions, radio sets and phonographs	461.2	597.7	834.0	831.1	915.8
Electronic tubes and semi-conductors	604.4	862.2	1,428.0	1,288.9	1,351.4
Other telecommunication and related equipment	1,347.6	1,659.6	2,140.0	2,143.4	2,497.5
Sub-total, transportation and communications equipment	20,058.2	25,805.9	34,583.2	40,123.7	43,275.0



**21.9 Value of imports into Canada from all countries on a customs basis, by section and commodity, 1982-86 (million dollars) (concluded)**

Section and commodity	1982	1983 <sup>f</sup>	1984	1985	1986
Other equipment and tools					
Air conditioning and refrigeration equipment	247.3	294.0	409.6	416.5	440.1
Electric lighting fixtures and portable lamps	134.7	161.6	215.3	267.0	322.7
Switchgear and protective equipment	144.3	131.4	138.6	157.1	176.1
Industrial control equipment	87.0	86.9	118.7	124.7	145.4
Other electric lighting distribution equipment	261.8	330.9	381.8	414.4	438.8
Auxiliary electric equipment for engines	283.3	428.1	574.8	549.3	571.1
Electrical property measuring instruments	166.6	183.7	241.1	243.6	244.4
Miscellaneous measuring and controlling instruments	277.1	268.8	381.0	405.9	415.6
Medical and related equipment	271.3	313.3	380.6	409.3	479.3
Navigation equipment	79.5	68.8	73.5	67.6	87.3
Other measuring and laboratory equipment	654.5	671.5	755.0	913.7	893.3
Safety and sanitation equipment	155.7	166.6	202.0	222.1	239.5
Service industry equipment	122.2	136.8	172.3	234.1	221.6
Furniture and fixtures	249.3	309.2	382.4	433.7	543.7
Hand tools and cutlery	286.5	344.8	424.3	433.3	506.9
Electronic computers	2,647.4	2,886.1	4,149.3	3,937.3	4,193.1
Other office machines and equipment	219.5	226.8	259.7	256.4	253.1
Miscellaneous equipment and tools	828.5	997.4	1,245.0	1,373.0	1,569.3
Sub-total, other equipment and tools	7,116.5	8,006.7	10,502.0	10,859.0	11,741.3
Personal and household goods					
Outerwear, except knitted	539.4	626.6	853.3	901.5	1,053.8
Outerwear, knitted	305.5	401.7	526.8	522.7	697.6
Other apparel and apparel accessories	223.5	264.4	348.9	380.3	442.6
Footwear	383.6	417.1	480.0	499.0	665.4
Watches, clocks, jewellery and silverware	205.6	223.0	289.8	320.1	361.5
Sporting and recreation equipment	242.8	254.4	271.0	309.2	342.1
Games, toys and children's vehicles	283.4	297.6	340.2	326.6	373.3
House furnishings	167.3	208.1	246.8	263.4	312.2
Kitchen utensils, cutlery and tableware	281.7	321.5	365.3	387.4	418.2
Other personal and household goods	339.5	406.2	471.6	493.5	578.6
Sub-total, personal and household goods	2,972.3	3,420.6	4,193.7	4,403.7	5,245.3
Miscellaneous end products					
Medicinal and pharmaceutical products	267.6	327.5	377.9	359.5	446.0
Medical, ophthalmic and orthopedic supplies	397.4	467.1	558.0	572.4	627.6
Newspapers, magazines and periodicals	380.8	401.7	465.9	444.0	466.8
Books and pamphlets	488.7	535.5	581.2	607.1	611.7
Other printed matter	253.0	276.3	330.0	333.8	391.8
Stationers' and office supplies	167.1	189.3	228.1	229.5	268.3
Unexposed photographic films and plates	279.2 <sup>f</sup>	318.7	371.9	331.4	366.4
Other photographic goods	600.9	620.0	762.3	685.5	803.9
Containers and closures	291.2	315.4	439.4	436.1	485.2
Other end products, inedible	801.4	878.5	1,041.3	1,175.6	1,299.1
Sub-total, miscellaneous end products	3,927.3 <sup>f</sup>	4,330.0	5,156.0	5,174.9	5,811.8
Total, end products, inedible	41,418.9 <sup>f</sup>	48,369.1	62,811.4	70,227.6	76,984.0
Special transactions - trade	1,013.2	980.7	1,533.5	1,629.4	1,746.9
Total, imports	67,855.7	75,608.4	95,460.0	104,355.2	112,678.0

**21.10 Value of total exports from Canada to all countries on a customs basis, by section and commodity, 1982-86 (million dollars)**

Section and commodity	1982	1983 <sup>†</sup>	1984	1985	1986
Live animals	326.0	341.1	520.2	467.8	349.6
Food, feed, beverages and tobacco					
Meat, fresh, chilled or frozen	750.8	658.6	728.2	791.4	940.9
Other meat and meat preparations	35.0	46.0	32.3	43.7	58.4
Fish, whole or dressed, fresh or frozen	331.1	259.5	315.7	382.2	507.8
Fish, fillets and blocks, fresh or frozen	515.3	501.8	515.8	561.2	751.4
Fish, preserved, except canned	175.8	134.7	132.1	139.4	188.7
Fish, canned	105.5	133.5	129.7	126.4	201.4
Shellfish	463.7	534.0	501.7	639.5	774.0
Dairy produce, eggs and honey	317.4	273.5	291.4	264.3	231.8
Barley	886.3	814.6	636.1	319.2	568.4
Wheat	4,288.9	4,647.7	4,724.7	3,778.6	2,835.8
Other cereals, unmilled	216.0	195.7	194.2	118.7	130.0
Hard spring wheat flour	75.5	80.7	114.7	84.8	69.6
Other cereals, milled	145.7	143.2	119.3	92.3	95.5
Cereal preparations	100.1	109.9	124.2	145.4	172.6
Fruits and fruit preparations	130.6	110.9	112.2	112.1	145.9
Vegetables and vegetable preparations	284.6	292.2	315.9	330.3	391.9
Sugar and sugar preparations	111.8	127.9	176.1	185.7	256.4
Other foods and materials for foods	137.9	144.7	219.0	256.4	309.0
Oilseed cake and meal	37.7	42.2	65.2	40.3	58.4
Other feeds of vegetable origin	99.7	135.1	150.5	116.2	128.9
Other fodder and feed	122.5	120.6	102.8	84.0	105.1
Whisky	337.2	340.2	363.1	352.0	322.1
Other beverages	149.0	164.5	195.2	200.7	217.5
Tobacco	135.0	120.3	127.3	107.5	138.8
Total, food, feed, beverages and tobacco	9,953.1	10,132.0	10,387.5	9,272.5	9,600.2
Crude materials, inedible					
Raw hides and skins	131.6	131.8	187.1	164.4	217.8
Fur skins, undressed	124.0	94.3	100.8	108.7	101.2
Other crude animal products	33.5	32.7	59.5	53.1	53.2
Seeds for sowing	31.4	48.2	27.5	30.5	55.3
Flaxseed	138.1	186.3	167.6	218.9	196.5
Rapeseed	418.7	432.5	648.5	543.6	422.3
Other oilseeds, oil nuts and oil kernels	92.6	70.1	101.7	86.5	100.0
Other crude vegetable products	105.9	113.9	140.5	159.0	190.9
Pulpwood	8.2	11.5	10.6	8.4	77.7
Pulpwood chips	97.9	89.3	85.4	83.2	77.7
Other crude wood products	120.3	174.4	263.0	203.1	227.5
Textile and related fibres	88.7	98.2	120.3	126.4	124.3
Iron ores and concentrates	1,033.5	972.0	1,112.1	1,174.1	1,107.8
Scrap iron and steel	70.4	81.7	95.3	120.5	108.5
Aluminum ores, concentrates and scrap	78.5	116.7	165.7	157.2	180.4
Copper in ores, concentrates and scrap	397.4	475.7	499.9	552.4	595.0
Lead in ores, concentrates and scrap	39.9	20.2	29.0	25.7	35.8
Nickel in ores, concentrates and scrap	298.7	336.6	581.0	580.4	476.8
Precious metals in ores, concentrates and scrap	317.6	391.4	381.1	295.5	369.9
Zinc in ores, concentrates and scrap	258.7	279.2	292.1	222.0	234.8
Radioactive ores and concentrates	358.6	62.6	333.7	233.6	167.0
Other metals in ores, concentrates and scrap	343.6	167.2	191.8	183.8	215.2
Crude petroleum	2,728.5	3,456.9	4,404.2	5,971.7	3,774.0
Natural gas	4,754.7	3,847.5	3,923.0	4,011.4	2,482.9
Coal and other crude bituminous substances	1,269.2	1,312.5	1,846.6	2,010.3	1,851.0
Asbestos, unmanufactured	482.6	454.9	498.9	446.4	398.8
Sulphur	720.1	572.4	831.3	1,288.7	1,109.0
Other crude non-metallic minerals	192.2	199.2	259.9	287.7	368.8
Other waste and scrap materials	65.9	63.9	79.6	92.6	105.4
Total, crude materials, inedible	14,801.0	14,293.9	17,437.7	19,439.9	15,360.2
Fabricated materials, inedible					
Leather and leather fabricated materials	38.1	37.4	40.0	41.8	48.8
Lumber, softwood	2,847.6	3,896.2	4,182.5	4,523.7	4,863.1
Lumber, hardwood	106.4	100.9	117.0	106.0	139.3
Shingles and shakes	157.5	231.1	264.5	257.4	268.4
Other sawmill products	15.8	17.5	27.6	25.8	27.0
Veneer	91.4	116.1	124.8	99.5	118.1
Plywood	124.1	141.8	147.9	149.3	121.9
Other wood fabricated materials	189.0	273.3	380.2	457.8	494.3
Wood pulp and similar pulp	3,221.4	3,048.8	3,906.5	3,410.8	4,072.5
Newsprint paper	4,086.2	3,955.8	4,783.5	5,411.6	5,667.3
Other paper for printing	414.1	411.6	558.5	530.3	614.4
Paperboard	133.0	177.0	222.5	200.4	276.2
Other paper	377.2	444.8	494.9	565.3	658.6
Yarn, thread, cordage twine and rope	82.9	91.2	96.6	112.2	151.6
Cotton broad woven fabrics	15.5	16.1	19.4	19.6	25.3
Other broad woven fabrics	78.3	53.0	67.1	65.5	76.1
Other textile fabricated materials	94.4	83.0	120.1	118.5	142.7
Oils, fats, waxes, extracts and derivatives	228.9	184.9	324.5	359.3	244.1
Chemical elements	170.7	186.5	228.7	224.2	240.7

### 21.10 Value of total exports from Canada to all countries on a customs basis, by section and commodity, 1982-86 (million dollars) (continued)

Section and commodity	1982	1983 <sup>f</sup>	1984	1985	1986
Fabricated materials, inedible (cont'd)					
Other inorganic chemicals	832.5	785.6	1,045.4	1,134.3	1,232.4
Organic chemicals	1,122.6	1,259.3	1,345.5	1,387.6	1,156.1
Fertilizers and fertilizer materials	1,022.3	1,203.0	1,557.3	1,306.1	1,163.0
Synthetic rubber and plastics materials	525.2	530.3	644.0	816.1	888.7
Plastics, basic shapes and forms	179.8	202.9	275.0	332.5	465.2
Other chemical products	247.2	296.2	327.0	352.9	433.7
Petroleum and coal products	2,545.6	2,815.9	3,203.4	3,343.3	2,108.5
Ferro-alloys	39.2	41.0	36.9	43.8	55.7
Primary iron and steel	189.0	257.5	207.5	196.5	219.9
Castings and forgings, steel	163.6	169.6	221.0	194.3	190.3
Bars and rods, steel	283.6	284.5	372.6	392.9	421.5
Plate, sheet and strip, steel	761.9	458.5	703.0	806.9	807.9
Railway track material	39.8	11.8	47.8	41.0	42.1
Other iron and steel and alloys	546.7	446.6	664.8	716.0	688.5
Aluminum, including alloys	1,434.3	1,748.8	1,909.6	1,912.6	2,345.1
Copper and alloys	542.7	711.4	800.9	668.1	730.8
Lead, including alloys	99.2	83.5	94.7	67.4	78.8
Nickel and alloys	508.4	500.2	564.5	595.3	559.8
Precious metals, including alloys	1,689.2	1,830.7	2,286.9	1,982.5	3,131.5
Zinc, including alloys	465.9	502.9	677.7	648.9	442.6
Other non-ferrous metals and alloys	84.3	73.1	94.5	110.6	107.3
Metal fabricated basic products	628.7	678.5	854.2	930.6	981.9
Abrasives basic products	122.7	141.9	180.7	163.7	176.5
Other non-metallic mineral basic products					
Electricity	341.7	349.3	528.3	582.5	648.6
Other fabricated materials, inedible	1,119.7	1,228.4	1,377.8	1,424.8	1,079.7
	160.6	181.9	236.2	320.2	318.0
Total, fabricated materials, inedible	28,169.0	30,260.3	36,364.1	37,150.4	38,724.4
End products, inedible					
Machinery					
Engines and turbines, general purpose	213.4	173.1	264.9	251.3	354.1
Electrical generators and motors	92.7	78.4	112.2	131.7	142.5
Other general purpose industrial machinery	518.8	505.3	471.6	520.5	567.1
Materials handling machinery and equipment	294.5 <sup>f</sup>	427.9	525.5	489.2	484.7
Drilling, excavating and mining machinery	730.6	563.6	579.3	624.0	703.1
Metalworking machinery	342.8	194.6	320.6	331.7	413.9
Woodworking machinery and equipment	99.5	102.5	141.6	127.8	133.8
Construction machinery and equipment	170.3	164.2	177.4	165.4	208.5
Plastics industry machinery and equipment	163.6	217.9	286.7	306.6	378.3
Pulp and paper industries machinery	98.5	73.0	81.9	216.0	132.8
Other special industry machinery	203.1	241.0	289.2	338.2	349.4
Soil preparation, seeding and fertilizing machinery	89.6	87.3	89.7	71.3	86.0
Combine reaper-threshers and parts	154.2	117.8	107.8	105.7	54.7
Other haying and harvesting machinery	63.1	40.1	51.8	44.7	35.8
Other agricultural machinery and equipment	161.2	177.9	221.5	193.0	220.0
Tractors	268.6	237.7	291.6	213.3	168.9
Total, machinery	3,664.5 <sup>f</sup>	3,402.3	4,013.3	4,130.4	4,433.6
Transportation and communications equipment					
Railway and street railway rolling stock	405.8	175.7	224.6	217.4	518.3
Passenger automobiles and chassis	7,437.7	9,666.1	13,895.9	16,156.3	17,936.4
Trucks, truck tractors and chassis	3,957.1	4,246.1	5,484.8	5,937.6	5,212.2
Other motor vehicles	383.3	275.2	389.4	419.6	438.3
Motor vehicle engines and parts	1,033.9	1,609.0	2,166.4	2,056.9	1,849.1
Motor vehicle parts, except engines	4,366.1	5,883.9	7,938.5	9,153.2	9,563.6
Ships, boats and parts	320.6	187.3	250.5	198.9	268.4
Aircraft, complete with engines	757.2	412.5	415.2	464.5	823.9
Aircraft engines and parts	584.6	590.7	773.4	759.0	897.3
Aircraft parts, except engines	752.4	813.9	889.0	1,248.8	1,446.4
Other transportation equipment	517.4	562.5	722.9	727.8	834.5
Televisions and radio sets and phonographs	126.2	153.9	184.4	205.6	200.3
Other telecommunication and related equipment	1,390.7	1,608.5	2,534.1	2,734.1	2,493.2
Sub-total, transportation and communications equipment	22,033.0	26,185.3	35,869.1	40,279.7	42,481.9

**21.10 Value of total exports from Canada to all countries on a customs basis, by section and commodity, 1982-86 (million dollars) (concluded)**

Section and commodity	1982	1983 <sup>f</sup>	1984	1985	1986
Other equipment and tools					
Heating and refrigeration equipment	140.1	175.9	197.5	234.9	268.5
Cooking equipment for food	28.5	32.1	39.0	41.9	57.7
Electric lighting and distribution equipment	298.3	279.5	398.7	464.3	474.4
Navigation equipment and parts	152.1	197.7	210.1	203.8	167.9
Other measuring, controlling laboratory, medical and optical equipment	489.0	493.1	534.9	555.5	717.6
Hand tools and miscellaneous cutlery	53.5	53.7	66.9	58.3	74.6
Office machines and equipment	1,187.8	1,378.5	1,805.3	1,881.7	1,887.3
Other equipment and tools	524.9	613.9	801.9	1,019.1	1,287.0
Sub-total, other equipment and tools	2,874.2	3,224.4	4,054.3	4,459.5	4,935.0
Personal and household goods					
Apparel and apparel accessories	257.2	233.8	308.3	345.5	412.8
Footwear	53.1	49.3	54.2	58.2	55.9
Toys, games, sporting and recreation equipment	135.2	128.9	206.3	195.1	214.2
Other personal and household goods	251.8	248.5	277.4	324.5	382.3
Sub-total, personal and household goods	697.3	660.5	846.2	923.3	1,065.2
Miscellaneous end products					
Medicinal and pharmaceutical products	124.3	142.4	138.2	140.4	167.5
Medical, ophthalmic and orthopedic supplies	83.3	81.4	95.2	113.6	122.1
Printed matter	260.9	319.8	425.6	510.7	633.1
Photographic goods	236.0	328.7	376.2	311.4	400.9
Firearms, ammunition and ordnance	46.7	75.3	175.1	239.5	203.0
Containers and closures	197.6	219.9	264.6	345.5	421.0
Prefabricated buildings and structures	162.4	129.5	178.0	189.2	242.3
Other end products	623.1	583.1	806.7	1,102.2	1,037.8
Sub-total, miscellaneous end products	1,734.3	1,880.1	2,459.6	2,952.5	3,227.7
Total, end products, inedible	31,003.4	35,352.6	47,242.6	52,745.7	56,143.2
Special transactions - trade	277.8	232.7	431.5	398.2	343.2
Total exports	84,530.3 <sup>f</sup>	90,612.6	112,383.6	119,474.5	120,520.9

**21.11 Value of total imports by geographic region and country on a customs basis, 1982-86 (thousand dollars)**

Region and country <sup>1</sup>	1982	1983 <sup>f</sup>	1984	1985	1986
Western Europe					
United Kingdom	1,903,948	1,809,753	2,305,149	3,280,844	3,721,155
Gibraltar	2	—	1	8	217
Ireland	128,787	107,266	186,856	217,878	244,817
Malta	2,679	2,263	2,428	5,814	3,389
Austria	91,891	108,007	155,609	182,182	212,961
Belgium and Luxembourg	263,532	296,196	446,741	530,129	618,228
Denmark	129,023	136,925	200,783	228,919	233,493
Finland	96,424	75,763	148,167	200,124	253,959
France	876,957	840,957	1,220,310	1,372,610	1,585,290
Germany, Federal Republic of	1,383,950	1,574,798	2,174,846	2,715,609	3,453,227
Greece	30,302	44,119	40,841	47,879	70,250
Iceland	4,931	3,234	2,973	3,499	11,883
Italy	724,848	798,497	1,116,182	1,331,097	1,671,351
Netherlands	267,295	349,756	545,322	622,853	694,138
Norway	92,684	313,562	133,913	187,912	167,561
Portugal	43,705	58,337	60,861	87,275	78,294
Spain	190,060	181,949	316,432	365,481	441,421
Sweden	365,764	415,759	581,631	682,833	788,209
Switzerland	429,558	407,973	378,681	488,956	591,284
Total, Western Europe	7,026,338	7,525,115	10,017,727	12,552,901	14,841,134



### 21.11 Value of total imports by geographic region and country on a customs basis, 1982-86 (thousand dollars) (continued)

Region and country <sup>1</sup>	1982	1983 <sup>f</sup>	1984	1985	1986
<b>Eastern Europe</b>					
Albania	158	9	33	62	39
Bulgaria	4,705	5,640	6,379	9,751	9,361
Czechoslovakia	60,337	54,443	64,960	66,622	62,438
German Democratic Republic	9,695	10,209	31,613	11,947	26,852
Hungary	25,531	28,150	30,646	33,891	41,951
Poland	43,562	39,512	57,588	57,936	67,931
Romania	30,479	50,131	47,348	45,099	55,868
Union of Soviet Socialist Republics	41,849	33,252	28,735	27,661	25,448
Yugoslavia	24,002	29,007	38,635	43,324	45,463
<b>Total, Eastern Europe</b>	<b>240,318</b>	<b>250,353</b>	<b>305,937</b>	<b>296,293</b>	<b>335,350</b>
<b>Middle East</b>					
Bahrain	1,113	523	274	92	3,594
Cyprus	445	353	11,355	897	500
Qatar	37	67	308	219	594
United Arab Emirates	34,266	2,432	6,554	2,126	2,100
Egypt	2,190	98,733	73,041	30,637	5,118
Ethiopia	2,440	2,048	187	1,189	2,156
Iran	117,183	526,750	175,179	143,237	208,682
Iraq	561	897	36	469	815
Israel	39,765	55,872	81,764	93,025	129,955
Jordan	106	199	23	117	1,633
Kuwait	769	18,283	355	137	293
Lebanon	495	769	759	864	1,060
Libya	22,675	34,941	72,418	37,652	22,727
Oman (Muscat)	19	34	133	303	4,380
Saudi Arabia	731,331	94,044	1,429	23,768	186,894
Somalia	366	—	—	78	134
Sudan	831	692	567	2	27
Syria	217	50,201	179	205	48
Turkey	11,646	12,809	26,795	35,886	56,753
Yemen, North	8	—	47	65	77
Yemen, South	107	65	110	218	755
<b>Total, Middle East</b>	<b>966,569<sup>f</sup></b>	<b>899,714</b>	<b>451,513</b>	<b>371,189</b>	<b>628,294</b>
<b>Other Africa</b>					
Gambia	31	36	—	—	84
Ghana	4,294	2,630	1,071	29	65
Kenya	13,666	11,417	15,491	14,230	20,868
Malawi	1,020	6,361	2,935	1,040	1,560
Mauritius and Dependencies	3,159	6,240	9,635	6,629	13,474
Nigeria	64,690	192,692	250,700	229,837	368,210
Zimbabwe	3,166	6,470	9,332	5,186	6,737
Sierra Leone	—	80	6	21	8,211
South Africa	218,718	194,143	221,830	227,734	373,164
Tanzania	2,687	2,117	4,228	3,704	3,062
Uganda	883	333	1,033	1,765	2,360
Zambia	1,927	29	273	26	84
Commonwealth Africa, other	8,404	33,337	15,841	15,654	28,965
Algeria	259,614	150,103	306,963	321,922	11,502
Angola	—	6	9	890	42,428
Benin	21	14	2	7	12
Cameroon	208	1,290	1,172	4,377	304
French Africa, other	563	593	1,054	1,300	16,616
Gabon	7,515	2,951	6,549	34,559	5,770
Guinea	23,754	19,297	10,018	9,573	15,169
Ivory Coast	12,300	10,450	38,345	17,878	15,760
Liberia	34	104	—	1,563	1,260
Madagascar	242	725	1,732	1,164	7,848
Mauritania	43	2	1	—	24
Morocco	15,393	15,818	14,980	13,523	19,358
Mozambique	967	301	450	287	110
Portuguese Africa, other	—	15	4	32	—
Senegal	47	1,285	238	375	58
Spanish Africa	57	—	27	524	380
Togo	96	2	—	2,375	3,182
Tunisia	392	1,549	23,771	101,171	9,358
Zaire	14,811	17,023	13,943	16,357	33,945
<b>Total, other Africa</b>	<b>658,699<sup>f</sup></b>	<b>677,410</b>	<b>951,633</b>	<b>1,033,731</b>	<b>1,009,926</b>
<b>Other Asia</b>					
Bangladesh	4,875	10,465	14,745	16,404	18,492
Hong Kong	668,839	820,450	966,199	886,820	1,040,967
India	90,699	101,118	147,133	168,201	165,405
Malaysia	89,193	115,581	167,965	146,400	150,204
Pakistan	16,031	18,526	54,232	29,987	146,858
Singapore	163,562	168,458	214,560	210,491	210,030
Sri Lanka	16,732	21,669	33,850	33,015	35,824

### 21.11 Value of total imports by geographic region and country on a customs basis, 1982-86 (thousand dollars) (concluded)

Region and country <sup>1</sup>	1982	1983 <sup>f</sup>	1984	1985	1986
Other Asia (cont'd)					
Afghanistan	458	209	188	181	45
Burma	109	292	239	782	1,556
China, People's Republic of	203,654	245,772	333,502	403,475	566,594
Indonesia	30,269	40,043	71,921	81,837	114,189
Japan	3,526,797	4,412,943	5,711,514	6,114,770	7,626,298
Laos	—	—	—	204	35
Korea, North	11	79	430	480	614
Korea, South	586,351	791,405	1,152,304	1,606,988	1,749,446
Nepal	—	112	261	524	813
Philippines	82,219	88,300	117,321	109,080	109,411
Portuguese Asia	6,516	9,952	15,915	12,717	18,836
Taiwan	661,268	925,496	1,223,800	1,286,167	1,744,665
Thailand	33,785	60,554	103,384	108,681	150,267
Vietnam	161	178	2,220	2,165	6,671
<b>Total, other Asia</b>	<b>6,181,530<sup>f</sup></b>	<b>7,831,604</b>	<b>10,331,681</b>	<b>11,219,370</b>	<b>13,857,220</b>
Oceania					
Australia	443,632	358,361	382,116	386,621	504,668
Fiji	7,741	6,031	5,738	6,583	4,809
New Zealand	140,455	156,571	122,366	160,333	174,808
British Oceania, other	9	4	104	—	45
French Oceania	22	501	458	16	837
Papua, New Guinea	66	351	3,465	51,142	563
United States Oceania	55	243	5	107	341
<b>Total, Oceania</b>	<b>591,980</b>	<b>522,061</b>	<b>514,251</b>	<b>604,801</b>	<b>686,072</b>
South America					
Falkland Islands	—	3	—	—	—
Guyana	24,318	19,214	26,193	23,323	26,917
Argentina	58,397	52,761	92,283	90,857	87,269
Bolivia	8,017	16,557	7,859	8,371	9,591
Brazil	482,479	500,045	668,661	809,121	821,641
Chile	119,720	133,825	122,139	130,471	127,333
Colombia	92,257	94,249	109,556	88,839	124,050
Ecuador	51,296	62,035	83,050	71,505	92,227
French Guiana	—	—	12	242	66
Paraguay	1,102	3,689	2,722	3,205	7,243
Peru	33,184	119,632	102,052	67,952	65,724
Suriname	7,476	7,376	1,141	627	1,665
Uruguay	10,716	32,767	16,630	8,307	14,862
Venezuela	1,805,016	1,004,453	1,207,226	1,092,129	516,069
<b>Total, South America</b>	<b>2,693,979<sup>f</sup></b>	<b>2,046,605</b>	<b>2,439,523</b>	<b>2,394,949</b>	<b>1,894,658</b>
Central America and Antilles					
Bahamas	66,035	50,583	127,519	38,876	29,808
Barbados	6,753	8,133	7,442	6,994	21,278
Belize	5,278	8,866	3,126	4,958	1,211
Bermuda	806	18,828	2,524	1,654	27,091
Jamaica	125,249	109,697	138,672	155,169	149,903
Leeward and Windward Islands	1,284	1,455	2,153	2,446	5,386
Trinidad and Tobago	18,019	9,030	18,975	29,558	54,090
Costa Rica	32,266	62,423	38,601	41,322	56,557
Cuba	94,843	56,287	62,692	44,524	71,123
Dominican Republic	18,363	19,432	31,948	18,258	36,049
El Salvador	20,873	35,026	24,989	35,587	64,188
French West Indies	69	79	67	117	1,268
Guatemala	23,088	20,823	36,313	26,155	40,362
Haiti	8,579	10,753	16,569	9,576	12,265
Honduras	28,462	35,946	30,536	20,894	20,678
Mexico	998,313	1,089,448	1,437,789	1,330,749	1,179,552
Netherlands Antilles	6,659	11,932	36,503	20,202	16,299
Nicaragua	26,648	32,120	45,334	25,621	34,111
Panama	18,262	46,551	39,544	22,482	27,965
Puerto Rico	126,625	146,669	177,204	199,220	194,747
Virgin Islands of the United States	486	1,172	1,036	27,295	40,799
<b>Total, Central America and Antilles</b>	<b>1,626,960</b>	<b>1,775,253</b>	<b>2,279,536</b>	<b>2,061,656</b>	<b>2,084,731</b>
North America					
Greenland	2,891	2,388	2,010	3,059	3,260
St. Pierre and Miquelon	504	520	374	513	389
United States	47,865,936	54,077,365	68,165,811	73,816,736	77,336,965
<b>Total, North America</b>	<b>47,869,332<sup>f</sup></b>	<b>54,080,273</b>	<b>68,168,195</b>	<b>73,820,308</b>	<b>77,340,613</b>
<b>Total, all countries</b>	<b>67,855,703<sup>f</sup></b>	<b>75,608,386</b>	<b>95,459,996</b>	<b>104,355,196</b>	<b>112,677,998</b>

In this table a dash indicates that either there was no trade or the amount was less than \$500.

<sup>1</sup> The country classification was designed for purposes of economic geography and does not reflect the views of the Government of Canada on international issues of recognition, sovereignty or jurisdiction.

### 21.12 Value of total exports by geographic region and country on a customs basis, 1982-86 (thousand dollars)

Region and country <sup>1</sup>	1982	1983 <sup>†</sup>	1984	1985	1986
<b>Western Europe</b>					
United Kingdom	2,726,592	2,505,371	2,535,238	2,482,229	2,718,261
Gibraltar	384	128	453	384	117
Ireland	98,622	99,062	99,293	84,632	91,469
Malta	2,393	2,112	1,631	731	1,131
Austria	43,352	53,241	47,652	59,037	52,392
Belgium and Luxembourg	791,090	714,276	702,183	722,008	844,206
Denmark	86,571	68,547	98,656	84,689	111,810
Finland	113,023	89,234	122,258	133,760	85,740
France	755,325	654,103	736,134	743,446	1,010,572
Germany, Federal Republic of	1,285,049	1,175,933	1,225,253	1,232,918	1,317,343
Greece	76,969	49,444	50,488	41,701	66,154
Iceland	6,389	5,611	3,699	3,446	7,627
Italy	704,505	569,254	600,699	542,050	709,470
Netherlands	1,060,296	974,665	1,088,830	956,311	1,001,679
Norway	256,292	246,152	337,615	385,545	320,951
Portugal	122,003	61,204	63,508	62,391	154,584
Spain	195,797	144,548	100,265	134,235	137,348
Sweden	199,621	153,375	178,177	199,198	247,479
Switzerland	246,215	258,172	243,601	324,009	356,625
<b>Total, Western Europe</b>	<b>8,770,488</b>	<b>7,824,431</b>	<b>8,235,633</b>	<b>8,190,720</b>	<b>9,234,960</b>
<b>Eastern Europe</b>					
Albania	131	50	266	196	99
Bulgaria	8,415	7,696	7,155	29,296	54,290
Czechoslovakia	31,507	15,266	18,972	23,106	14,407
German Democratic Republic	21,552	202,443	215,212	111,798	117,666
Hungary	13,772	14,921	14,372	16,048	11,234
Poland	359,608	45,860	37,507	36,247	20,156
Romania	4,576	18,999	23,662	39,194	119,616
Union of Soviet Socialist Republics	2,073,726	1,763,617	2,122,576	1,611,748	1,221,595
Yugoslavia	76,676	52,373	79,887	42,738	42,570
<b>Total, Eastern Europe</b>	<b>2,589,963</b>	<b>2,121,223</b>	<b>2,519,607</b>	<b>1,910,371</b>	<b>1,601,632</b>
<b>Middle East</b>					
Bahrain	5,587	4,745	5,354	6,017	7,817
Cyprus	16,274	11,851	11,091	1,329	10,059
Qatar	18,609	10,055	11,025	5,679	7,923
United Arab Emirates	54,976	35,232	25,826	20,030	25,445
Egypt	371,400	140,506	293,231	192,757	135,049
Ethiopia	14,130	28,869	35,978	61,068	31,751
Iran	183,277	209,512	147,214	65,070	37,134
Iraq	193,403	117,156	166,495	71,616	106,115
Israel	134,419	132,484	160,625	143,568	139,014
Jordan	23,835	12,902	10,641	5,528	6,139
Kuwait	97,110	65,709	68,348	32,037	36,324
Lebanon	37,167	14,648	11,457	10,968	17,590
Libya	119,889	78,693	72,698	95,243	74,399
Oman (Muscat)	22,276	9,110	7,138	10,622	6,161
Saudi Arabia	446,890	368,756	357,932	235,278	215,884
Somalia	3,800	823	5,047	148	1,855
Sudan	14,331	16,300	14,885	19,147	23,126
Syria	4,006	80,386	102,027	41,650	12,341
Turkey	110,647	104,370	177,376	221,427	202,980
Yemen, North	1,470	554	5,835	17,021	4,733
Yemen, South	2,198	2,032	4,209	3,080	10,642
<b>Total, Middle East</b>	<b>1,875,692</b>	<b>1,444,694</b>	<b>1,694,432</b>	<b>1,259,284</b>	<b>1,112,480</b>
<b>Other Africa</b>					
Gambia	155	84	92	13	61
Ghana	10,249	22,643	28,016	24,743	29,442
Kenya	25,142	13,050	23,890	17,989	54,092
Malawi	1,604	1,066	966	711	861
Mauritius and Dependencies	688	393	540	949	1,048
Nigeria	64,499	50,791	75,851	70,346	26,379
Zimbabwe	6,899	4,691	10,599	11,562	7,719
Sierra Leone	350	910	480	186	166
South Africa	231,606	171,474	206,794	155,128	153,983
Tanzania	22,383	17,493	17,433	18,054	25,353
Uganda	487	3,090	1,298	616	1,319
Zambia	6,483	3,184	11,227	7,123	12,781
Commonwealth Africa, other	1,065	3,979	4,972	2,323	36,380
Algeria	500,268	449,303	453,101	332,346	190,764
Angola	988	3,537	1,827	4,262	1,248
Benin	912	697	866	730	2,374
Cameroon	31,303	19,008	18,116	34,474	14,073
French Africa, other	8,367	12,907	31,023	41,395	22,701
Gabon	2,590 <sup>†</sup>	1,002	2,653	1,398	12,639
Guinea	886	1,322	3,180	18,206	2,940

## 21.12 Value of total exports by geographic region and country on a customs basis, 1982-86 (thousand dollars) (continued)

Region and country <sup>1</sup>	1982	1983 <sup>†</sup>	1984	1985	1986
Other Africa (cont'd)					
Ivory Coast	4,475	3,188	16,981	18,254	7,447
Liberia	4,824	4,451	5,302	3,074	2,507
Madagascar	2,426	1,879	3,503	6,214	1,794
Mauritania	2,110	3,986	3,770	3,505	271
Morocco	104,780	59,514	60,560	169,954	154,798
Mozambique	28,750	10,516	34,112	7,027	6,531
Portuguese Africa, other	1,897	447	1,757	2,098	2,427
Senegal	11,797	19,399	19,728	21,997	15,214
Spanish Africa	13,817	373	2,124	178	2,184
Togo	1,706	5,015	4,671	3,706	4,943
Tunisia	74,151	46,949	76,643	78,984	75,641
Zaire	23,400	13,036	14,811	21,722	16,889
Total, other Africa	1,191,059 <sup>†</sup>	949,377	1,136,886	1,079,267	886,967
Other Asia					
Bangladesh	120,728	114,759	102,987	106,929	101,473
Hong Kong	265,493	229,298	232,306	345,594	329,457
India	290,600	262,733	474,060	496,252	356,137
Malaysia	125,256	119,742	185,025	209,194	108,841
Pakistan	104,613	69,670	91,578	142,619	160,302
Singapore	154,548	130,102	146,605	120,051	154,775
Sri Lanka	17,432	53,042	46,757	23,343	41,466
Afghanistan	226	67	158	171	160
Burma	4,745	1,568	2,566	5,350	356
China, People's Republic of	1,232,070	1,608,479	1,242,880	1,296,779	1,112,056
Indonesia	207,853	214,498	292,338	258,777	243,936
Japan	4,589,906	4,755,339	5,666,488	5,737,089	5,940,522
Laos	8	38	14	465	28
Korea, North	72	1,244	2,593	1,197	1,279
Korea, South	487,687	563,385	725,783	786,362	972,878
Nepal	—	1,213	6,076	1,329	1,282
Philippines	101,731 <sup>†</sup>	77,495	58,015	46,425	49,866
Portuguese Asia	45	52	91	53	291
Taiwan	304,730	344,721	429,536	433,722	603,585
Thailand	146,355	147,511	127,521	132,641	109,976
Vietnam	330	1,204	1,953	2,096	2,856
Total, other Asia	8,154,429 <sup>†</sup>	8,696,160	9,835,329	10,146,438	10,291,926
Oceania					
Australia	697,756	468,656	656,637	675,796	653,377
Fiji	2,290	2,861	2,515	2,330	6,236
New Zealand	159,150	125,601	193,856	192,957	152,278
British Oceania, other	1,129	245	450	1,259	220
French Oceania	1,938	1,490	1,430	1,127	3,124
Papua, New Guinea	22,764	9,430	2,545	2,041	12,457
United States Oceania	4,283	1,688	2,808	2,347	6,758
Total, Oceania	889,310	609,972	860,241	877,857	834,451
South America					
Falkland Islands	184	20	21	65	—
Guyana	12,742	4,292	7,548	4,471	4,669
Argentina	92,158	98,309	93,497	63,904	71,182
Bolivia	9,195	3,804	11,030	2,969	8,956
Brazil	546,109	625,263	798,625	685,882	789,163
Chile	68,173	71,377	81,398	82,172	88,879
Colombia	225,515	230,456	218,944	163,323	188,760
Ecuador	65,402	48,391	49,982	50,303	84,159
French Guyana	533	22	—	235	3,354
Paraguay	943	1,235	9,069	2,265	2,438
Peru	110,316	85,250	96,276	48,750	111,825
Suriname	4,518	3,607	2,123	3,637	1,478
Uruguay	13,818	6,650	9,942	5,399	12,813
Venezuela	672,731	308,885	291,636	332,678	416,645
Total, South America	1,822,338	1,487,561	1,670,089	1,446,052	1,784,321
Central America and Antilles					
Bahamas	29,664	30,458	41,348	28,170	28,935
Barbados	33,865	40,399	41,291	34,180	43,771
Belize	2,343	2,067	4,861	4,409	4,026
Bermuda	36,076	30,933	34,988	34,330	32,100
Jamaica	71,513	66,819	76,341	54,755	73,347
Leeward and Windward Islands	33,927 <sup>†</sup>	33,421	32,180	43,151	81,015
Trinidad and Tobago	145,961	155,602	141,508	100,672	91,041
Costa Rica	16,296	22,408	21,576	21,379	27,999
Cuba	324,910	362,920	339,483	330,327	364,708
Dominican Republic	51,415	46,758	32,801	36,406	54,252
El Salvador	15,261	18,621	15,807	15,173	11,294
French West Indies	3,916	2,269	2,072	1,322	2,406



### 21.12 Value of total exports by geographic region and country on a customs basis, 1982-86 (thousand dollars) (concluded)

Region and country <sup>1</sup>	1982	1983 <sup>†</sup>	1984	1985	1986
Central America and Antilles (cont'd)					
Guatemala	34,253 <sup>f</sup>	15,918	21,941	17,779	15,274
Haiti	23,674	15,241	19,024	25,922	21,142
Honduras	15,428	11,576	31,617	14,110	14,018
Mexico	455,894	377,030	356,962	398,739	403,583
Netherlands Antilles	35,321	10,769	10,805	8,634	8,012
Nicaragua	15,663	16,009	22,479	18,873	23,163
Panama	47,957	30,835	40,055	54,961	45,572
Puerto Rico	99,949	122,930	170,610	213,268	208,097
Virgin Islands of the United States	21,771	26,418	13,885	14,416	5,413
Total, Central America and Antilles	1,515,058 <sup>f</sup>	1,439,400	1,471,636	1,470,617	1,559,166
North America					
Greenland	6,090	3,776	4,845	9,164	3,555
St. Pierre and Miquelon	30,806	24,466	26,614	25,358	29,116
United States	57,685,021	66,011,491	84,928,312	93,059,385	93,182,254
Total, North America	57,721,918	66,039,733	84,959,772	93,093,907	93,214,926
Total, all countries	84,530,255 <sup>f</sup>	90,612,551	112,383,622	119,474,511	120,520,875

In this table a dash indicates that either there was no trade or the amount was less than \$500.

<sup>†</sup> The country classification was designed for purposes of economic geography and does not reflect the views of the Government of Canada on international issues of recognition, sovereignty or jurisdiction.

### 21.13 Receipts and payments on travel between Canada and other countries, selected years (million dollars)

Country	1978	1980	1981	1982	1983	1984	1985
United States							
Receipts	1,650	2,121	2,491	2,402	2,664	3,146	3,674
Payments	2,553	2,920	3,208	3,234	3,903	3,991	4,158
Balance	-903	-799	-717	-832	-1,239	-845	-484
Other countries							
Receipts	728	1,228	1,269	1,322	1,177	1,270	1,332
Payments	1,531	1,657	1,668	1,774	2,142	2,551	2,952
Balance	-803	-429	-399	-452	-965	-1,281	-1,620
All countries							
Receipts	2,378	3,349	3,760	3,724	3,841	4,416	5,006
Payments	4,084	4,577	4,876	5,008	6,045	6,542	7,110
Balance	-1,706	-1,228	-1,116	-1,284	-2,204	-2,126	-2,104

### 21.14 Total assistance disbursements, by program<sup>1</sup>, 1981-82 to 1985-86 (million dollars)

Program	1981-82	1982-83	1983-84	1984-85	1985-86
Country-to-country (bilateral)	943.40	1,075.12	1,139.69	1,412.51	1,309.40
Government-to-government					
Anglophone Africa	181.47	187.75	146.70	195.06	159.60
Francophone Africa	133.31	144.83	137.68	195.82	176.09
Americas	73.33	57.76	97.38	127.92	116.38
Asia	256.68	305.97	275.58	337.04	355.46
Europe	11.84	0.06	0.03	-0.01	-2.30
Oceania	0.95	0.95	1.40	1.30	1.54
Miscellaneous	13.78	18.75	19.74	17.50 <sup>2</sup>	9.44
Sub-total, government-to-government	671.36	716.07	678.51	874.64	816.21

**21.14 Total assistance disbursements, by program<sup>1</sup>, 1981-82 to 1985-86 (million dollars) (concluded)**

Program	1981-82	1982-83	1983-84	1984-85	1985-86
Other country-to-country					
Canadian non-governmental organizations	99.89	136.25	177.68	168.65	196.84
International non-governmental organizations	12.11	17.93	19.00	21.44	22.52
International Development Research Centre	45.89	53.56	63.67	76.25	82.28
Humanitarian assistance	18.17	25.08	40.21	75.15 <sup>3</sup>	25.85
Petro-Canada International Assistance Corp.	—	17.55	42.03	51.54	20.92
International Centre for Ocean Development	—	—	—	0.80	0.42
Scholarship programs	3.84	4.20	4.09	4.40	5.96
Miscellaneous programs	15.37	17.66	22.61	40.32	29.52
Administrative costs	76.77	86.82	91.89	99.32	108.88
Sub-total, other country-to-country	272.04	359.05	461.18	537.87	493.19
Multilateral assistance					
General funds	58.00	68.20	73.50	72.25	72.25
Renewable natural resources	23.19	12.68	40.38	13.90	14.00
Population and health	10.64	11.70	12.95	12.85	13.75
Commonwealth and francophone programs	13.18	14.82	15.91	17.41	19.10
Other programs	2.33	3.96	6.10	5.87	5.45
International humanitarian assistance	12.26	13.72	9.75	12.80	14.80
World Food Program	108.96	117.55	146.29	146.03	150.30
Contributions to regular budgets and voluntary funds by External Affairs and other departments	20.60	26.71	25.36	27.32	29.63
International financial institutions	296.43	325.18	342.04	376.03	545.34
Sub-total, multilateral assistance	545.59	594.52	672.27	684.47	864.61
Total assistance (ODA)	1,488.99	1,669.64	1,811.95	2,096.97	2,174.01
ODA/GNP ratio (%)	0.430	0.459	0.455	0.489	0.464

<sup>1</sup> CIDA funds and others.**21.15 Department of National Defence expenditures, by province and outside Canada, 1981-82 to 1985-86 (million dollars)**

Province or territory	1981-82	1982-83	1983-84	1984-85	1985-86
Newfoundland	42.0	46.5	52.3	65.6	76.1
Prince Edward Island	41.4	43.4	90.0	69.8	69.6
Nova Scotia	624.0	712.4	761.0	952.0	977.6
New Brunswick	182.7	213.1	352.9	382.3	336.2
Quebec	945.4	1,087.3	1,071.4	1,178.4	1,195.0
Ontario	1,883.3	1,951.4	2,326.6	2,687.3	2,747.2
Manitoba	261.9	265.8	289.7	350.9	357.6
Saskatchewan	73.1	80.1	115.8	131.1	132.8
Alberta	363.2	398.9	526.1	635.8	626.9
British Columbia	472.4	548.2	611.5	733.9	769.1
Yukon	0.6	1.0	1.4	1.6	1.5
Northwest Territories	17.7	24.1	31.6	35.5	22.4
Sub-total, Canada	4,907.7	5,372.2	6,230.3	7,224.2	7,312.0
Outside Canada	1,120.0	1,619.8	1,741.9	1,701.9	1,855.8
Total	6,027.7	6,992.0	7,972.2	8,926.1	9,167.8

**21.16 Canadian Armed Forces strength, selected years**

Fiscal years ending March 31	Navy <sup>1</sup>	Army <sup>1</sup>	Air <sup>1</sup> Force	Canadian Armed Forces	Total
1962	21,500	51,855	53,119	...	126,474
1969	18,291	37,445	42,604	...	98,340
1972	15,388	32,212	37,333	...	84,933
1976	7,599	18,295	21,943	31,901	79,738
1978	6,501	15,500	18,700	40,436	81,137
1979	5,952	14,212	17,209	43,218	80,591
1980	5,437	13,032	15,771	46,058	80,299
1981	4,943	11,832	14,284	49,802	80,861
1982	4,543	10,671	12,992	54,652	82,858
1983	4,188	9,899	12,089	56,729	82,905
1984	3,927	9,233	11,292	57,223	81,675
1985	3,563	8,515	10,221	61,441	83,740
1986	3,252	7,799	9,184	64,138	84,373

<sup>1</sup> After 1972, no navy, army or air force existed *per se*. The figures provided in these columns are based on Prior Single Service Affiliation.

**Sources**

21.1 Domestic Communications Division, Department of External Affairs.

21.2 - 21.12 International Trade Division, Statistics Canada.

21.13 Education, Culture and Tourism Division, Statistics Canada.

21.14 Public Affairs Branch, Canadian International Development Agency.

21.15 - 21.16 Parliamentary Affairs Division, Department of National Defence.





CHAPTER 22

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# GOVERNMENT FINANCE

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THEN



In 1873 the net Debt of the Dominion was \$21.73 2/5 per head of the total population. The net interest was \$1.20 1/3 per head. "The debt was incurred in the construction of public works which have promoted so greatly the rapid growth of the Dominion." (1873)

The annual taxation of the people of Canada in 1871 was \$3.53 per head. "Among twenty-eight different nations whose statistics have been examined, only Brazil, Norway, Sweden, Turkey and Switzerland, contribute less revenue per head than the people of the Dominion. . . Under these circumstances this country can justly claim - and, it is to be hoped, it will long continue - to be one of the most lightly taxed communities in the world." (1871)

In 1917 there was an enormous expansion of trade, resulting in a revenue surplus of over \$84,000,000, more than double the surplus of the previous year. (1916-17)

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NOW

The federal government incurred a deficit of \$30,234 million for the fiscal year 1984-85, compared to \$25,253 million for 1983-84.

The yield from corporation income taxes increased by 28.7% in 1984-85, due to a strong growth in corporation profits of just over 21% in 1985.

The federal government's gross general expenditures for the fiscal year 1984-85 increased 11.8%, largely due to increased debt charges, resource conservation and industrial development, social security, protection of persons and property, and health.

Income taxes are the greatest source of gross general revenue for the federal government. Three quarters of individual taxpayers are wage- or salary-earners who have most of their taxes deducted by their employers.



Statistics Canada produces two sets of data on government finance: *estimates data* derived from the budgets and financial estimates of the various levels of government, and *actual data* derived from audited public accounts after they are published.

The estimates data are less detailed but apply to the current fiscal year and are available on CANSIM (Canadian Socio-economic Information Management System), Statistics Canada's machine-readable data base. In this electronic form they can be readily revised and are updated as soon as information becomes available. In a fiscal year, which in the federal, provincial and territorial governments runs from April 1 to March 31 of the following calendar year, the current information is available by July. Data on local governments are compiled for the calendar year from budgets and other sources and are also released through CANSIM. Since 1985-86, the information available includes revenue and expenditure forecasts for federal, provincial and territorial, and local governments plus a consolidation of all three levels.

The actual data are extracted from audited public accounts of the various jurisdictions and are issued in printed reports. The preparation and release dates of these publications depend on the availability of public accounts information from each level of government.

Both of these sets of data are produced in accord with the financial management system (FMS) of government statistics. Only through use of FMS-based data can accurate comparisons be made between governments or between levels of government. FMS data are also used to calculate equalization payments and other federal-provincial financial arrangements.

*The system of government financial management statistics* (Statistics Canada 68-507) reflects changes in government operations and changes in statistical formats implemented since the system was last updated in 1972. For example, a number of new taxes are now identified particularly in the area of natural resources.

The FMS conceptual framework is the basis employed in preparing statistical information for the annual consultation between federal and provincial Ministers of Finance, pertaining to the co-ordination of budgetary policies.

Statistics Canada has been publishing financial data for the three levels of government according to the concepts and classifications of the FMS for over 60 years. Efforts are currently under way to expand the scope of the financial management system to include non-government institutions such as universities, hospitals and cultural agencies, which constitute a major portion of the public sector.

This chapter is based on the actual data as published. Users wanting more current information should access the CANSIM data.

## 22.1 Review of revenue and expenditure

The federal government, on a financial management basis, incurred a deficit of \$30,234 million for the fiscal year 1984-85, compared to \$25,253 million for the previous year. Gross general revenue during 1984-85 amounted to \$83,740 million while gross general expenditure totalled \$113,974 million. For 1983-84 gross general revenue was \$76,715 million and gross general expenditure was \$101,968 million.

### 22.1.1 Gross general revenue

Gross general revenue (Table 22.2), for the fiscal year ended March 31, 1985, increased by \$7,025 million (9.2%), compared to the \$3,985 million (5.5%) rise in 1984.

The most significant sources of this growth were: corporation income taxes, personal income taxes, general sales taxes, customs duties and unemployment insurance contributions. The growth was offset somewhat by the elimination of the natural gas and gas liquids tax in February 1984.

The yield from corporation income taxes increased by \$2,094 million (28.7%), compared to an increase of \$147 million (2.1%) in 1983-84. This substantial increase was due to a strong growth in corporation profits of just over 21% in 1985.

Revenues from personal income taxes rose by \$1,793 million (6.1%) in 1984-85 compared to \$1,914 million (7.0%) a year earlier. This smaller rate of increase occurred despite the lowering of the federal tax reduction to \$100 from \$200, and the capping of the 1984 indexation factor at 5%.

Receipts from general sales taxes increased by \$1,069 million (16.1%). This growth was largely due to the one percentage point increase in sales tax rates levied in the fall of 1984 and increases in consumer and business spending during the year.

Receipts from custom import duties rose by \$416 million (12.3%), reflecting the strong increase in imports in 1984. The growth rate was slowed, however, by the implementation of further tariff reductions as scheduled under the multilateral trade negotiations.

Revenues from the unemployment insurance contributions rose by \$298 million (4.1%). This increase was mostly due to rises in the value of premiums levied. Weekly employee premiums at \$8.86 in 1983 rose to \$9.78 in January 1984 and again by \$1.03 to \$10.81 in January 1985.

Revenues from the natural gas and gas liquids tax fell by \$541 million because the rate of this tax was set to zero effective February 1, 1984.

### 22.1.2 Gross general expenditure

Gross general expenditures (Table 22.3), for the fiscal year 1984-85, increased by \$12,006 million (11.8%) compared to \$9,519 million (10.3%) in 1983-84.

Functions which contributed most significantly to the increase were: debt charges, resource conservation and industrial development, social security, protection of persons and property, and health.

Debt charges rose by 27.9%. The rise of \$3,656 million was mainly due to an increase in unmatured debt during the year and higher interest rates.

Expenditures on the function resource conservation and industrial development increased by \$2,178 million (25.9%). The main factors contributing to this sharp increase were: outlays under the Western Grain Stabilization Act; larger payments to provinces for the oil export charge; and increased petroleum compensation payments.

Expenditures on the social service function increased by \$1,983 million. Increased numbers of recipients and higher benefit levels, due to inflation indexing, caused expenditures under the Canada Pension Plan to rise by \$571 million (15.5%) and the Old Age Security Program by \$1,012 million (9.7%). In addition, social welfare payments to the provinces under the

Canada Assistance Plan increased by over 9%, mainly because of the effects of continued high unemployment levels through 1984-85.

The growth in the protection of persons and property function expenditures resulted from a \$839 million increase in national defence spending, reflecting the government's North Atlantic Treaty Organization commitment to increase defence expenditures by at least 3% in real terms each year.

Health function expenditures increased by \$863 million (13.9%) in the fiscal year due to higher payments to the provinces under the Federal Provincial Fiscal Arrangements Act and the Established Programs Financing Act. The growth in these transfers reflected a substantial retroactive payment in 1984-85 and the increase in the Gross National Product over the period to which these programs are indexed.

### 22.1.3 Consolidated government finance

Data on each level of government — federal, provincial and local — constitute the basis of the intergovernment consolidation which is presented for the years 1980 to 1982 in Table 22.1. The consolidation process integrates the separate levels of government to reveal the fiscal framework of the public sector viewed as an economic unit. As a result, the numerous intergovernmental transactions either as revenue or as expenditure are eliminated in order to obtain a measure of the collective impact of all government transactions upon the rest of the economy, in terms of services provided and taxes collected.

### 22.1.4 General accounts

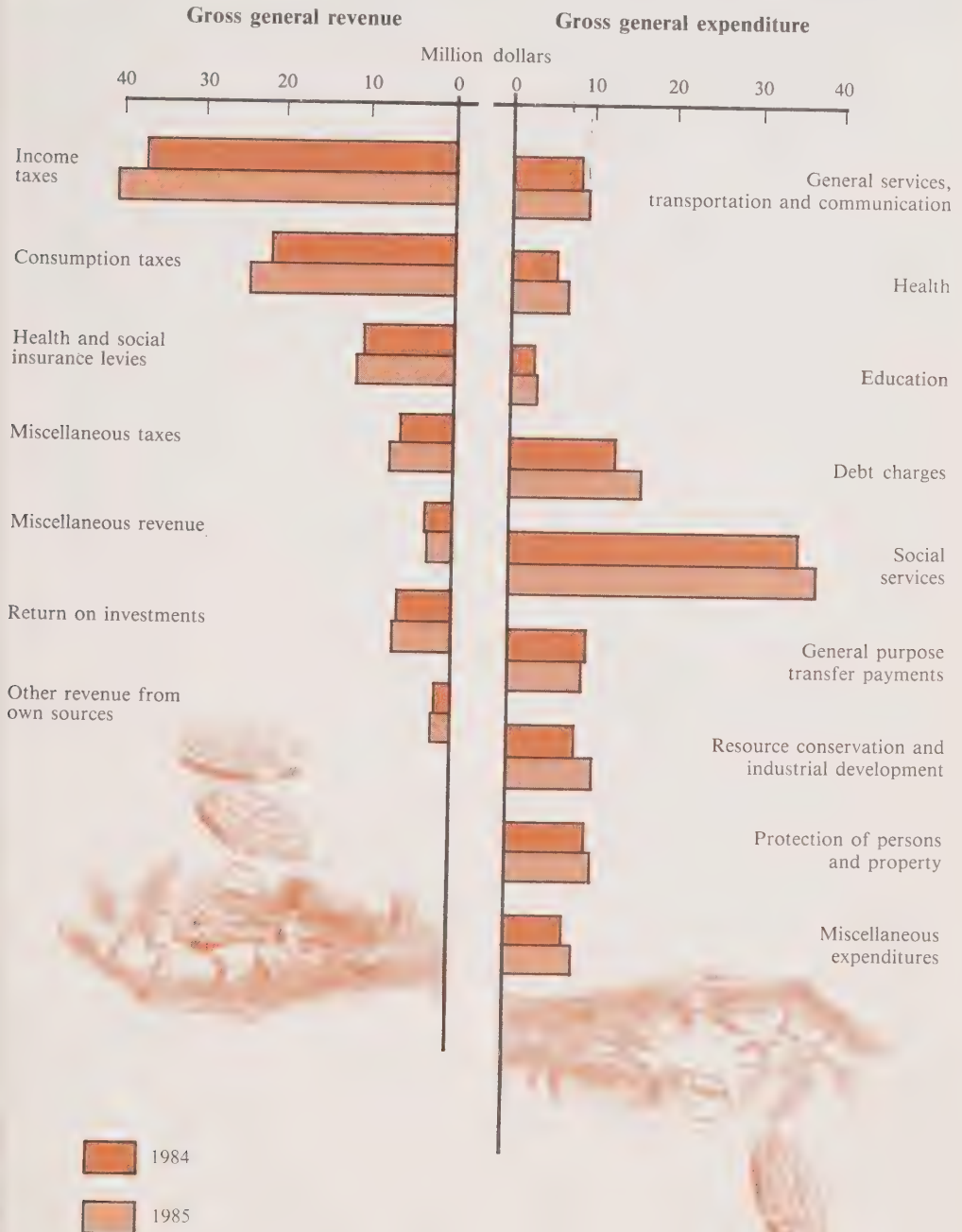
Tables 22.2 to 22.6 and 22.19 present financial statistics of the federal government prepared in accordance with the concepts published in *The Canadian system of government financial management statistics* (Statistics Canada 68-507). Financial statistics in Tables 22.7 and 22.14 are extracted directly from the *Public accounts of Canada*.

Table 22.4 provides details of the assets and liabilities of the federal government as at March 31, 1982 to 1985. Table 22.5 analyzes gross bonded debt according to average interest rate, average term of issue and place of payment as at March 31, 1982 to 1985.

In addition to direct gross bonded debt, the federal government has assumed certain contingent liabilities. The major categories of this indirect or contingent debt are the guarantee of insured loans under the National Housing Act and the guaranteed bonds and debentures of Canadian National Railways. The remainder

Chart 22.1

**Gross general revenue and gross general expenditure of the federal government, 1984-85, year ended March 31**





consists chiefly of guarantees of loans made by chartered banks to the Canadian Wheat Board, to farmers and to university students and of guarantees under the Export Development Act. Table 22.6 provides data on the contingent liabilities of the government as at March 31, 1982 to 1985.

## 22.2 Federal financial operations and control

### 22.2.1 Financial administration

The financial affairs of the federal government are administered under the basic principle set out in the Constitution Act, 1867, that no tax shall be imposed and no money spent without the authority of Parliament and that expenditures shall be made only for the purposes authorized by Parliament. The government introduces all money bills and exercises financial control through a budgetary system based on the principle that all the financial needs of the government for each fiscal year ending March 31 should be considered at one time so that both the current and prospective conditions of the public treasury may be clearly evident.

**Estimates and appropriations.** Treasury Board, whose Secretariat is a separate department of government under the President of the Treasury Board, co-ordinates the estimates process.

Under a policy and expenditure management system, total government outlays are divided into eight functional categories or envelopes, and planned levels for spending are established over a multi-year horizon. Envelopes consist of the estimated cost of existing programs (A-base projections), and either a positive "policy reserve", or a "negative reserve" if the envelope has been set at a level which requires net reductions in existing programs. Responsibility for program decisions and the allocation of funds within envelopes is delegated to policy committees of Cabinet. As well as allocating funds from any policy reserve established when the envelope is initially set, policy committees may add to this reserve through reductions in existing programs. Hence, the system encourages policy committees and departments to review their programs in order to provide funds for new initiatives.

Each year, departments and agencies submit a multi-year operational plan (MYOP) to the Treasury Board. This document provides detailed information on proposed spending over the planning period for their currently authorized levels of activity (the A-base projections).

Based on the multi-year operational plan, the Treasury Board Secretariat prepares recommendations for the budgetary and non-budgetary allocations to each program for Treasury Board and Cabinet review. Departments are advised of the allocations approved by Cabinet. Departments also develop separate detailed estimates for their resource requirements for the first or upcoming year of the MYOP. Following review by Treasury Board and approval by Cabinet, the MYOP levels for all planning years are updated and the estimates for the upcoming year are tabled in Parliament in February.

The new year main estimates are referred to committees of the House of Commons by March 1 of the expiring fiscal year. The committees must report back to the House not later than May 31. Supplementary estimates are referred to standing committees immediately after they are tabled and reporting dates are stipulated.

There are three supply periods that end December 10, March 26 and June 30. The first supplementary estimates for a year are usually dealt with in the December period and the final supplementary estimates in the March period. In addition, interim supply (consisting of 3/12ths for all voted items in main estimates and extra 12ths for some voted items) is dealt with in the March period. In the June period the House is asked to provide full supply on main estimates. In each supply period a number of days are allotted to the business of supply. Opposition motions have precedence over all government supply motions on allotted days, and opportunities to put forward votable motions are provided. On the last allotted day in each period, the appropriation acts then before the House of Commons must be voted on. These acts authorize payments out of the consolidated revenue fund of the amounts included in the estimates, whether main or supplementary, subject to the conditions stated in them.

**The budget.** The Finance Minister usually presents a budget speech in the House of Commons some time before the main estimates have been introduced. The budget speech reviews the state of the national economy and the financial operations of the government in the previous fiscal year and gives a forecast of the probable financial requirements for the year ahead, taking into account the main estimates and allowing for supplementary estimates. At the close of his address, the Minister tables the formal notices of ways and means motions for any changes in the existing tax rates or rules and customs tariff which, in accordance with parliamentary procedure, must



precede the introduction of any money bills. These resolutions give notice of the amendments which the government intends to ask Parliament to make in the taxation statutes. However, if a change is proposed in a commodity tax, such as a sales tax or excise duty on a particular item, it is usually effective immediately; the legislation, when passed, is retroactive to the date of the speech.

The budget speech supports a motion that the House approve in general a budgetary policy of the government; debate on this motion may take up six sitting days. Once it is passed the way is clear for consideration of the budget resolutions. When these have been approved the tax bills are introduced and dealt with in the same manner as all other government financial legislation.

**Revenues.** Administrative procedures for revenues and expenditures are, for the most part, contained in the Financial Administration Act.

The basic requirement for revenues is that all public money shall be paid into the consolidated revenue fund, which is the aggregate of all public money on deposit to the credit of the Receiver General for Canada, who is the Supply and Services Minister. Treasury Board has prescribed detailed regulations for the receipt and deposit of this money. The Bank of Canada and the chartered banks are the custodians of public money. Balances are apportioned among the various chartered banks according to a percentage allocation established by agreement among all the banks and communicated to the Finance Department by the Canadian Bankers' Association. The daily operating account is maintained with the Bank of Canada and the division of funds between it and the chartered banks takes into account the immediate cash requirements of the government and consideration of monetary policy. The Finance Minister may purchase and hold securities of, or guaranteed by, Canada and pay for them out of the consolidated revenue fund or may sell such securities and pay the proceeds into the fund. Thus, if cash balances in the fund exceed immediate requirements, they may be invested in interest-earning assets. In addition, the Finance Minister has established a purchase fund to assist in the orderly retirement of the public debt.

Treasury Board has central control over the budgets of departments and over financial administrative matters generally, principally during the annual consideration of departmental long-range plans and of the estimates. The Board also has the right to maintain continuous control over certain types of expenditure to

ensure that activities and commitments for the future are held within approved policies, and that the government is informed of and approves any major development of policy or significant transaction that might give rise to public or parliamentary criticism.

To ensure enforcement of the expenditure decisions of Parliament, the government and Ministers, the Financial Administration Act provides that no payment shall be made out of the consolidated revenue fund without the authority of Parliament and no charge shall be made against an appropriation except on the requisition of the appropriate Minister or a person authorized by him or her in writing. These requisitions, which must meet certain standards prescribed by Treasury Board regulation, are presented to the Receiver General, who makes the payment.

At the beginning of each fiscal year, or whenever Treasury Board may direct, each vote included in estimates is divided into allotments. Once approved, they cannot be varied or amended without the consent of the Board. To avoid over-expenditures, commitments due to be paid within a fiscal year are recorded and controlled by the departments concerned. Commitments made under contract that will fall due in succeeding years are recorded, since the government must be prepared in the future to ask Parliament for appropriations to cover them. Any unspent amounts in the annual appropriations lapse at the end of the fiscal year, but for 30 days subsequent to March 31 payments may be made and charged to the previous year's appropriations for work performed, goods received or services rendered prior to the end of that fiscal year.

**Public debt.** In addition to collecting and disbursing public money, the government receives and pays out substantial sums in connection with its public debt operations. The Finance Minister is authorized to borrow money by the issue and sale of securities at whatever rate of interest and under whatever terms and conditions the Governor-in-Council approves. Although new borrowings require specific authority of Parliament, the Financial Administration Act authorizes the Governor-in-Council to approve borrowings, as required, to redeem maturing or called securities. To ensure that the consolidated revenue fund will be sufficient to meet lawfully authorized disbursements, he or she may also approve the temporary borrowing of necessary sums for periods not exceeding six months. The Bank of Canada acts as the fiscal agent of the government in the management of the public debt.

**Accounts and financial statements.** Under the Financial Administration Act, Treasury Board may prescribe the manner and form in which the accounts of Canada and the accounts of individual departments shall be kept. Annually, on or before December 31 or, if Parliament is not then sitting, within any of the first 15 days after Parliament resumes, the Public Accounts, prepared by the Receiver General, are laid before the Commons by the Minister of Finance. The Public Accounts contain a survey of the financial transactions of the fiscal year ended the previous March 31 and statements of revenues and expenditures, assets and direct and contingent liabilities, together with other accounts and information required to show the financial position of Canada. The statement of assets and liabilities is designed to disclose the net debt, which is determined by offsetting against the gross liabilities only those assets regarded as readily realizable or interest- or revenue-producing. Fixed capital assets, such as government buildings and public works, are charged to budgetary expenditures at the time of acquisition or construction and are shown on the statement of assets and liabilities at a nominal value of \$1.00. Monthly financial statements are also published in the *Canada Gazette*.

### 22.2.2 Sources of revenue

**Individual and corporation taxes.** As shown in Table 22.2, income taxes are the greatest source of gross general revenue for the federal government. Approximately 75% of individual taxpayers are wage- or salary-earners who have almost the whole of their tax liability deducted at the source by their employers. All other taxpayers are required to pay most of their estimated tax during the taxation year. Thus, the greater part of the tax is collected during the same year in which the related income is earned and only a limited residue remains to be collected when returns are filed. The collections for a given fiscal year include employer remittances of tax deductions, Canada Pension Plan contributions, unemployment insurance premiums and instalments, embracing portions of two or more taxation years, and year-end payments; they cannot therefore be closely related to the statistics for a given taxation year. As little information about a taxpayer is received when the payment is made and as a single cheque from one employer may frequently cover the tax payment of hundreds of employees, the payments cannot be statistically related to taxpayers by occupation or income. Descriptive classifications of taxpayers are available only from tax

returns, but collection statistics, if interpreted with the current tax structure and the above factors in mind, indicate the trend of income in advance of final compilation of statistics. The statistics given in Table 22.7 pertain to revenue collections for fiscal years ended March 31, 1980-85.

**Individual income tax.** The federal government has adopted a tax system in which taxpayers volunteer the facts about their incomes and calculate the taxes they must pay. Every individual resident in Canada is liable for the payment of income tax on all his income regardless of where it is earned. A non-resident is liable for tax only on income from sources in Canada. Residence is the place where a person resides or where he maintains a dwelling ready at all times for his use. There are also statutory extensions of the meaning of resident to include a person who has been in Canada for an aggregate period of 183 days in a taxation year, a person who was during the year a member of the armed forces of Canada, an officer or servant of Canada or of any one of its provinces, or the spouse or dependent child of any such person. The extended meaning of resident also includes employees who go from Canada to work under certain international development assistance programs.

Canadian tax law uses the concepts of income and taxable income. Income means income from all sources inside or outside Canada and includes income for the year from businesses, property, offices and employment. Since January 1, 1972, it has also included half of any capital gains.

In computing income, an individual must include benefits from employment, fees, commissions, dividends, annuities, pension benefits, interest, alimony and maintenance payments. Also included are unemployment insurance benefits, family allowance payments, scholarships in excess of \$500, benefits under a disability insurance plan to which his or her employer contributes and other miscellaneous items of income. A number of items are expressly excluded from income, including certain war service disability pensions, social assistance payments, compensation for an injury or death under provincial worker compensation acts, family income security payments and guaranteed income supplement which is a payment made to individuals over age 65 who have little or no income in addition to their old age pension.

Taxable capital gains are determined by deducting capital losses from capital gains and dividing by two. If losses exceed capital gains,

\$2,000 of allowable capital losses may be deducted from other income. Allowable capital losses that are not absorbed in the same year may be carried over to apply in other years. Losses on small business shares can be written off against other income without limit. Capital gains or losses relate to disposition of property. Other gains or losses, for example, resulting from a lottery or gambling, are not included. The sale of personal property at a price not exceeding \$1,000 and the sale of a home do not give rise to a capital gain or loss.

Certain amounts are deductible in computing income. Detailed information is available from Revenue Canada, Taxation.

Individual income tax statistics collected by Revenue Canada, Taxation are presented in Tables 22.7 – 22.11 on a calendar-year basis and are compiled from a sample of all returns received. Taxpayers and amounts of income and tax are shown for selected cities and by occupational class and income classes.

**Corporation income tax.** The Income Tax Act levies a tax upon the worldwide income of corporations resident in Canada and upon the income attributable to operations in Canada of non-resident corporations carrying on business in Canada. Half of capital gains must be included in income. In computing income, corporations may deduct operating expenses such as wages and salaries, costs of goods sold, municipal real estate taxes, reserves for doubtful debts, bad debts and interest on borrowed money.

Statistics on the taxation of corporate income showing a reconciliation of income taxes to taxable income and book profits are published on an industry basis in *Corporation taxation statistics* (Statistics Canada 61-208). Data are summarized for nine industrial divisions in Table 22.12. Taxable income data are also available on a provincial basis, as shown in Table 22.13.

**Excise taxes.** A drawback of 99% of the duty may be granted when domestic spirits, testing not less than 50% over proof, are delivered in limited quantities for medicinal or research purposes to universities, scientific or research laboratories, public hospitals or health institutions in receipt of federal and provincial government aid.

The Excise Tax Act levies a general sales tax and special excise taxes. These taxes are levied on goods imported into Canada as well as on goods produced in Canada. They are not levied on goods exported.

Some goods are exempt from sales tax. Drugs, electricity, fuels for lighting or heating, all clothing and footwear, foodstuffs and a com-

prehensive list of energy conservation, transportation and construction equipment are exempt. In addition, articles and materials purchased by public hospitals and certain welfare institutions are not subject to sales tax. The products of farms, forests, mines and fisheries are, to a large extent, exempt as is most equipment used in farming and fishing. Machinery and equipment used directly in production, materials consumed or expended in production and equipment acquired by manufacturers or producers to prevent or reduce pollution to water, soil or air from their manufacturing operations are all exempt. A number of items are exempt when purchased by municipalities. These and other exemptions are set forth in the Excise Tax Act.

The Excise Tax Act also imposes a number of special excise taxes in addition to the sales tax. Where these are ad valorem taxes they are levied on the same price or duty-paid value as the general sales tax. Those levied as at December 31, 1985 and 1986 are given in Table 22.15.

**Excise duties.** The excise act levies taxes (referred to as excise duties) upon alcohol, alcoholic beverages other than wines and tobacco products. These duties are not levied on imports but the customs tariff applies special duties to these products equivalent to the excise duties levied on the products manufactured in Canada. Exported goods are not subject to excise duties.

The duties on spirits are on a proof gallon basis. They do not apply to denatured alcohol intended for use in the arts and industries, or for fuel, light or power, or any mechanical purpose. Canadian brandy (distilled exclusively from juices of native fruits without the addition of sweetening materials) is subject to an excise duty. Excise duties are imposed on tobacco, cigars and cigarettes in addition to the special excise taxes.

**Customs duties.** Many goods imported into Canada are subject to customs duties at various rates. Customs duties once were the chief source of revenue for the country but have declined in importance, now providing less than 10% of the total. Apart from its revenue aspects, however, the tariff occupies a place as an instrument of economic policy.

The customs tariff provides for four different tariff treatments — general preferential, British preferential, most-favoured-nation and general. The general preferential rates apply to certain goods imported from designated developing countries. For descriptions of the other rates see Chapter 21, External relations, trade and defence.



**Other sources** of gross general revenue for 1981-85 are indicated in Table 22.2.

In all cases where customs duties are applied there are provisions for drawback of duty on imports of materials used in the manufacture of products later exported. These drawbacks assist Canadian manufacturers to compete with foreign manufacturers of similar goods.

### 22.2.3 The Auditor General

The government's accounts are subject to an independent examination by the Auditor General who is an officer of Parliament. One of his objectives is to make independent examinations of the accounts of federal departments and agencies and of other entities for which he is the appointed auditor, and to express his opinion on their integrity.

Another objective is to make independent examinations and inquiries and report on whether or not there were significant deficiencies in the management control systems and practices, providing reasonable assurance, where possible, that public assets are safeguarded and controlled, that transactions are lawful and proper, and that financial, human and physical resources are managed with economy and efficiency and that procedures are in place to measure and report on the effectiveness of programs.

The Auditor General calls attention to anything that he or she considers should be brought to the attention of the House of Commons, communicates these findings and observations to management of the audited entity and may make constructive recommendations.

## 22.3 Federal-provincial fiscal relations

Fiscal relations between the federal, provincial and territorial governments are governed either by an act of Parliament or by formal agreements. The Constitution Act, 1867, the Public Utilities Income Tax Transfer Act, and the Federal-Provincial Fiscal Arrangements and Established Programs Financing Act, 1977 were the most important legislative measures under which fiscal transfers have been paid by the federal government to the provinces. All of the federal-provincial financial arrangements are now included in an Act to amend the Federal-Provincial Fiscal Arrangements and Established Programs Financing Act, 1977, popularly known as the Federal-Provincial Fiscal Arrangements and Federal Health and Education Contributions Act, 1977, passed on June 7, 1984.

### 22.3.1 Fiscal arrangements

This is a term that covers a variety of federal-provincial financial arrangements. Many have existed since Confederation in 1867. Included are various federal-provincial transfers and tax collection agreements.

Federal-provincial transfers include two basic types: general purpose transfers and specific purpose transfers.

**General purpose transfers.** Early general purpose transfers were basically subsidies paid to the provinces under the Constitution Act, 1867 (formerly called the BNA Act). These were per capita payments to ensure that the provinces had sufficient resources to meet their general responsibilities and remain solvent.

Contemporary general purpose transfers are basically equalization payments. The equalization program was begun in 1957 and has been based on a formula negotiated every five years and designed to reduce disparity of fiscal capacity between "have" and "have-not" provinces. From its general revenue, the federal government compensates any province whose per capita revenue is below the national average because of a relative deficiency in the province's tax base. Thus, equalization payments are intended to ensure that all citizens are provided with comparable standards of public services throughout the country.

General purpose transfers now amount to more than \$6 billion annually, with about 90% composed of equalization grants.

Since the beginning of this program in 1957, seven provinces have received equalization payments: Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Manitoba and Saskatchewan.

**Specific purpose transfers.** Early specific purpose transfers for programs cost-shared by the federal and provincial governments began in 1912. Through these transfers, the federal government contributed to spending priorities in provincial constitutional jurisdictions. Usually these were specific in purpose, such as for agricultural training, highway construction or disease control, and were of fixed duration and fixed total value.

Contemporary specific purpose transfers are mainly for large-scale social programs which lie within provincial constitutional jurisdiction but are deemed to be of national importance, of indefinite duration and with high cost, such as health care, social welfare and education.

**Tax collection agreements.** Tax collection agreements originated at the end of World War II.



The first agreements were implemented for the years 1947 to 1952, pursuant to the Dominion-Provincial Tax Rental Agreement Act. The 1947 agreements started the series of five-year federal-provincial arrangements, each one modifying and broadening the terms and content of the preceding one. For instance, with the adoption in 1957 of tax-sharing arrangements, replacing the tax rental agreements in force since 1942, the federal government initiated an income tax abatement system in favour of the provinces. The 1957 formula, however, was modified by the 1962 agreements so that the provinces could establish their own income tax rates which could be higher or lower than the federal abatement. The federal government undertook to collect for the provinces, with its own income tax, provincial personal and corporation income taxes provided that provincial tax systems were uniform with the federal system. All provinces except Quebec signed the agreements for personal income tax, and all provinces except Quebec and Ontario for corporation income tax. This collection is made at no cost to the provinces except for a small fee for administration of special tax rebates implemented by some provinces.

Generally these agreements are accompanied by revenue guarantees, to prevent a precipitous fall in provincial revenues and hence to strengthen provincial credit ratings.

## 22.4 Tax rates

Taxes are imposed in Canada by the three levels of government. The federal government has the right to raise money by any mode or system of taxation while provincial legislatures are restricted to direct taxation within the province. Municipalities derive their incorporation with its associated powers, fiscal and otherwise, provincially and are thus also limited to direct taxation.

A direct tax is generally recognized as one demanded from the very person who is individually required to pay it. This concept has limited the provincial governments to the imposition of income tax, retail sales tax, succession duties and an assortment of other direct levies. In turn, municipalities acting under provincial legislation tax real estate, water consumption and places of business. The federal government levies taxes on income, excise taxes, excise and customs duties, and a sales tax.

**Provincial taxes and fees.** According to the Constitution Act, 1867, a government cannot levy taxes on another government. However, due to the growing complexities of the economic and commercial transactions of governments, the

constitutional provisions for intergovernmental taxation have become increasingly difficult to observe, particularly when government purchases are made through suppliers in the private sector such as retailers and building contractors.

To remove, or at least minimize, the uncertainties and difficulties surrounding the paying of consumption taxes among governments, a set of indexes based on criteria applied to various types of expenditure was devised and is incorporated in the 1977 federal-provincial fiscal arrangements. Under this act, the federal government could enter into reciprocal taxation agreements with the provincial governments as of October 1977. Such agreements were scheduled to run until March 31, 1981, with provisions for renewal. The terms of these agreements also apply to purchases by Crown corporations listed in parts of the Financial Administration Act and the Federal-Provincial Fiscal Arrangements and Established Programs Financing Act, 1977. As of February 1977, six provinces had agreed to enter into these reciprocal taxation agreements: Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Quebec and Ontario.

## 22.5 Provincial government finance

Because of variation from province to province in administrative structure and, to a lesser extent, in accounting and reporting practices, adjustments are made to financial data reported in public accounts to produce statistics comparable between different provinces and with those for the other levels of government. In 1972 the concepts and classifications of the national system of government financial statistics were redefined (see *The system of government financial management statistics*, Statistics Canada 68-507). Financial statistics for the years 1971 onward are compiled in accordance with these revisions.

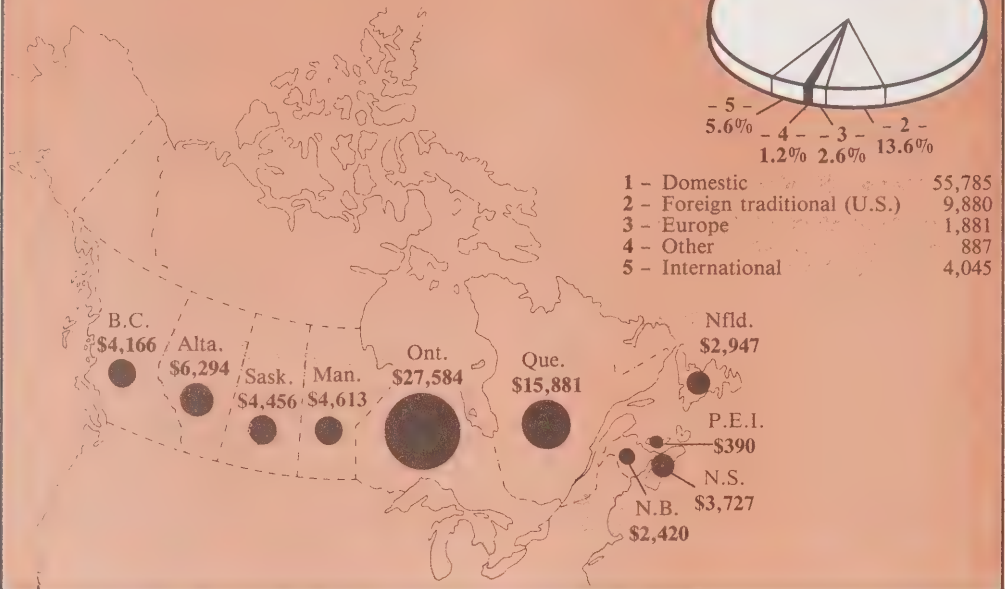
Gross general revenue is given in Table 22.20 and gross general expenditure in Table 22.21, liabilities in Table 22.16, and liabilities of other governments and entities guaranteed by provincial and territorial governments in Table 22.17. More information on outstanding provincial bonds and debentures is in Table 22.18.

### 22.5.1 Provincial taxes

All of Canada's provinces levy a wide variety of taxes, fees, licences and other forms of imposition. Among such levies, a relatively small number account for about 75% of total provincial revenue from own sources. Only the more

Chart 22.2

**Bonds and debentures, by market, of provincial government, year ended Mar. 31, 1984 (million dollars)**



important levies are briefly described here. Table 22.20 indicates the amount of revenue derived by provinces and territories from such sources.

**Personal income tax.** All provincial governments levy a tax on the income of individuals who reside within their boundaries and on the income earned by non-residents from sources within those boundaries. Rates of provincial individual income tax are expressed as percentages of basic federal tax, with the exception of Quebec which has its own system. The basic federal tax on which provinces apply their rates is the federal tax after the dividend tax credit but before any foreign tax credit and special federal tax reductions.

**Corporation income tax.** All provinces levy a tax on the taxable income of corporations. In provinces other than Quebec, Ontario and Alberta, the provincial corporation income tax is imposed on the same basis as that established for federal corporation income tax purposes, and is collected by the federal government under tax collection agreements. In Quebec, Ontario and Alberta, the determination of corporation taxable income follows closely, but not exactly, the federal rules

and each collects its own levy. Corporate taxable income earned in a province is eligible for the 10% federal abatement to compensate corporations for provincial taxes payable.

**Provincial sales tax.** All provinces except Alberta tax at a retail level a wide range of consumer goods and services purchased in or brought into the province. The tax is payable on the selling price of tangible personal property, defined to include certain services, purchased for own consumption or use and not for resale. Each provincial act, however, specifies a number of goods that are exempt. Exemptions include items related mainly to necessities of life and to material used in the farming or fishing industries.

**Gasoline and diesel fuel oil taxes.** Each province and each territory imposes a tax on the purchase of gasoline and diesel fuel by motorists and truckers and other fuel intended to generate motive power. In Alberta and Saskatchewan, the taxation base is restricted on fuel used in railway locomotives and aircraft. A number of activities such as farming, fishing, mining or logging are either exempt from motive fuel taxation or are taxed at a preferred rate.

**Tax on mining operations.** With the exception of Prince Edward Island, all provinces levy some form of tax on profits of mining operations. The tax rates vary considerably depending on the product being mined, and on the size and nature of the profits being taxed.

In addition to taxes on profits of mining operations all provinces have provisions which enable them to receive royalties from the extraction of minerals including oil and gas.

**Motor vehicle licences and fees.** Each province levies a fee on the compulsory registration of a motor vehicle whereupon the vehicle is issued with licence plates. The fees vary from province to province and, in the case of passenger cars, may be assessed on the weight of the vehicle, the wheel base, the number of cylinders of the engine or at a flat rate for specified regions within a province or territory. The fees for commercial motor vehicles and trailers are based on the gross or curb weight for which the vehicle is registered, that is, the weight of the vehicle empty plus the load it is permitted to carry. Every operator or driver of a motor vehicle is required to register periodically and pay a fee for a driver's licence.

**Land transfer taxes.** Ontario levies a tax based on the price at which ownership of land is transferred and a tax on the increase in value on the sale of designated land (all real property except Canadian resource property). New Brunswick levies a real property transfer tax on the value of real property transactions. Quebec levies a land speculation tax on the value of immovable property transferred to non-residents for purposes other than development. Municipalities may levy duties on immovable property transferred. In Alberta, a fee is charged proportional to the registered value of land. British Columbia and Saskatchewan do not have a land transfer tax but have an equivalent in land title fee which is based on land value.

## 22.6 Local government finance

Details for revenue and expenditure are given in Tables 22.22 and 22.23.

### 22.6.1 Local taxes

For purposes of financial statistics local government is comprised of three principal categories —

municipalities, local school authorities and special purpose authorities. Consequently, local taxes are levied by either one of these entities or by all of them depending upon the taxing powers granted to each of them by their respective provincial legislatures. For more than a century, the main source of revenue of local governments has been related to real properties within their jurisdictions. Various taxes have been gradually implemented to supplement the real property tax from which, however, they still derive the bulk of their revenue.

**Local property tax.** Municipalities throughout Canada levy taxes on real properties situated within their boundaries. Generally speaking, they set the rates and collect the proceeds of their own levy and levies made on behalf of other local governments in their area, such as local school authorities. However, in most of Quebec outside the Montreal area and in the unorganized parts of Ontario, school boards levy and collect their own real property taxes directly.

The real property tax rate is generally expressed in mills (rate per \$1,000 of the base) or as a rate per \$100 of the base. This base is the assessed value of each property. Methods of determining assessed value vary widely not only among the provinces but also among municipalities within a province. However, for taxation purposes, assessed value is considered to be a percentage of actual market value.

**Business taxes.** Among other taxes that municipalities levy, business taxes rank next to the real property tax as a producer of municipal revenue. Such taxes are levied directly on the tenant or the operator of a business. The bases on which business taxes are levied are very diversified among the provinces. The most common in use are: a percentage of the assessed value of real property, the value of stock-in-trade, the assessed annual rental value of immovables and the area of premises occupied for business purposes.

**Water charges.** In general, municipalities recoup all, or part, of the cost of supplying water through special charges for water consumption. Such charges take various forms such as a charge based on the actual consumption of water, or a water tax based on the rental value of the property occupied.

**Sources**

- 22.1 - 22.1.4 Public Institutions Division, Statistics Canada.
- 22.2.1 Communications Division, Treasury Board.
- 22.2.2 Statistical Services Division, Revenue Canada, Taxation; Business Finance Division, Statistics Canada.
- 22.2.3 Communications, Office of the Auditor General.
- 22.3 - 22.3.1 Public Institutions Division, Statistics Canada.
- 22.4 Tax Analysis and Commodity Tax Division, Department of Finance.
- 22.5 - 22.6.1 Public Institutions Division, Statistics Canada.



## TABLES

..	not available	e	estimate
...	not appropriate or not applicable	p	preliminary
—	nil or zero	r	revised
--	too small to be expressed	certain tables may not add due to rounding	

### 22.1 Consolidated government revenue and expenditure, after elimination of intergovernment transfers, fiscal years ended nearest December 31 (million dollars)

Source or function	1980	1981	1982
Consolidated government revenue by source			
Income taxes			
Personal	34,545	41,541	46,087
Corporation	11,733	11,795	9,488
On payments to non-residents	867	1,018	998
Total, income taxes	47,145	54,354	56,573
Property and related taxes			
Consumption taxes	9,782	11,094	12,225
General sales	11,640	13,226	13,628
Motive fuel	2,316	3,030	3,416
Alcoholic beverages and tobacco	2,286	2,603	3,035
Custom duties	3,188	3,439	2,831
Other	723	804	829
Total, consumption taxes	29,935	34,196	35,964
Health and social insurance levies	10,508	13,914	14,736
Miscellaneous taxes	3,813	9,597	9,850
Natural resource revenue	7,389	6,838	6,904
Privileges, licences and permits	1,799	2,005	2,106
Sales of goods and services	6,529	7,426	6,400
Return on investments	12,568	14,607	15,741
Other revenue from own sources	3,184	4,279	4,248
Total, consolidated revenue	122,870	147,216	152,522
Consolidated government expenditure by function			
General services	8,279	9,417	11,087
Protection of persons and property	10,264	11,999	13,680
Transportation and communications	10,889	11,549	11,216
Health	15,702	18,801	21,672
Social services	29,380	32,968	41,852
Education	18,068	20,832	23,181
Resource conservation and industrial development	10,774	12,596	14,686
Environment	3,219	3,409	3,605
Recreation and culture	3,103	3,396	3,905
Foreign affairs and international assistance	1,076	1,261	1,543
Debt charges	14,815	19,449	22,516
Other expenditures	6,966	7,852	10,637
Total, consolidated expenditure	132,535	153,529	179,580
Consolidated government revenue less consolidated government expenditure	-9,665	-6,313	-27,058

### 22.2 Gross general revenue of the federal government, years ended March 31 (million dollars)

Source	1981	1982	1983	1984	1985
Taxes					
Income taxes					
Personal	21,296	25,232	27,376	29,290	31,083
Corporation	8,130	8,118	7,139	7,286	9,380
On certain payments to non-residents	867	1,018	998	909	1,021
Consumption taxes					
General taxes	5,429	6,185	5,894	6,660	7,729
Motive fuel	454	436	408	386	405
Alcoholic beverages	699	773	829	894	979
Tobacco	811	865	1,036	1,076	1,172
Racetrack betting	8	10	10	13	13
Air transportation	166	189	198	208	226
Custom duties	3,188	3,439	2,831	3,380	3,796
Other	96	87	79	120	145

**22.2 Gross general revenue of the federal government, years ended March 31 (million dollars) (concluded)**

Source	1981	1982	1983	1984	1985
Health and social insurance levies					
Unemployment insurance contributions	3,327	4,787	4,939	7,319	7,617
Universal pension plan levies <sup>1</sup>	2,614	3,202	3,363	3,623	3,778
Miscellaneous taxes					
Taxes on insurance premiums	1	1	1	1	1
Oil export charges	842	963	625	346	676
Petroleum levy	1,393	3,792	—	—	—
Other	487	3,429	7,563	5,474	5,924
Total, taxes	49,808	62,526	63,289	66,985	73,945
Natural resources	47	105	141	200	181
Privileges, licences and permits	69	77	94	102	114
Sales of goods and services <sup>2</sup>	3,290	3,603	2,226	2,265	2,246
Return on investments	4,843 <sup>1</sup>	5,084 <sup>1</sup>	5,097	5,394	5,457
Contributions to government-owned pension plans	532	664	857	912	946
Bullion and coinage	60	70	54	56	70
Fines and penalties	35	41	40	49	47
Miscellaneous	331 <sup>1</sup>	937 <sup>1</sup>	932	752	734
Total, gross general revenue	59,015 <sup>1</sup>	73,107 <sup>1</sup>	72,730	76,715	83,740

<sup>1</sup> Canada Pension Plan.<sup>2</sup> Includes postal receipts in 1981 and 1982; excludes them in 1983, 1984 and 1985.**22.3 Gross general expenditure of the federal government, years ended March 31 (million dollars)**

Function	1981	1982	1983	1984	1985
General services	3,482	4,014	4,356	4,883	5,327
Protection of persons and property <sup>1</sup>	6,372	7,495	8,645	9,866	10,854
Transportation and communications <sup>2</sup>	4,255	4,160	2,818	3,190	3,734
Health					
Hospital care	2,493	2,668	2,434	3,459	5,357
Other	1,898	2,073	2,186	2,738	1,703
Sub-total, health	4,391	4,741	4,620	6,197	7,060
Social services					
Canada Pension Plan	2,029	2,485	3,058	3,686	4,257
Old age security	7,418	8,585	9,643	10,406	11,418
Unemployment insurance	4,744	5,560	9,961	10,128	10,371
Worker compensation	28	33	40	45	51
Family allowances	1,851	2,019	2,231	2,327	2,418
Veterans' benefits	993	1,124	1,265	1,370	1,441
Social welfare assistance	2,246	2,650	3,222	4,172	4,558
Other social welfare	909	823	998	1,091	1,195
Tax credits and rebates	1,296	973	821	2,117	1,616
Sub-total, social services	21,514	24,252	31,239	35,342	37,325
Education	2,513	2,673	2,876	3,565	3,891
Resource conservation and industrial development <sup>3</sup>	7,246	8,509	9,677	8,751	10,929
Environment	343	350	466	486	491
Recreation and culture	538	621	640	805	903
Labour, employment and immigration	777	882	1,128	1,204	1,364
Housing	1,002	1,086	1,794	1,654	2,098
Foreign affairs and international assistance	1,076	1,261	1,543	1,743	2,040
Regional planning and development	162	134	169	224	388
Research establishments	1,073	1,080	1,120	1,188	1,161
General purpose transfers to other levels of government	4,387	5,309	6,189	6,560	6,830
Transfers to own enterprises	1,427	1,484	2,878	3,206	2,816
Debt charges	7,320	10,722	12,289	13,101	16,757
Other	2	3	2	3	6
Total, gross general expenditure	67,880	78,776	92,449	101,968	113,974

<sup>1</sup> Includes National Defence.<sup>2</sup> Includes the Post Office in 1981 and 1982; excludes it in 1983, 1984 and 1985.<sup>3</sup> Includes agriculture, trade and industry, and tourism.

**22.4 Assets and liabilities of the federal government, years ended March 31 (million dollars)**

Item	1982 <sup>r</sup>	1983	1984	1985
<b>Assets</b>				
Cash on hand or on deposit	8,964	8,053	9,055	7,944
Receivables	723	860	761	813
Loans and advances	29,079	29,317	30,767	30,763
Investments	46,155	50,597	55,253	57,813
Other assets	3,913	5,496	5,143	6,929
<b>Total, assets</b>	<b>88,834</b>	<b>94,323</b>	<b>100,979</b>	<b>104,262</b>
<b>Liabilities</b>				
Bank overdrafts	4,042	4,883	5,828	6,828
Payables	9,587	11,824	13,939	16,382
Loans and advances	1,039	1,151	1,197	1,882
Treasury bills	19,375	29,125	41,700	52,300
Canada Savings Bonds	24,978	32,641	38,204	41,959
Other bonds	46,878	51,885	59,183	72,053
Other liabilities	26,455	26,053	29,433	32,743
<b>Total, liabilities</b>	<b>132,354</b>	<b>157,562</b>	<b>189,484</b>	<b>224,147</b>

**22.5 Gross bonded debt of the federal government, years ended March 31 (million dollars)**

Item	1982	1983	1984	1985
Bonded debt	71,856	84,526	97,387	114,012
Average interest rate (%)	12.0	12.2	10.9	11.6
<b>Place of payment</b>				
Canada	68,561	81,116	95,204	111,420
United States	2,396	2,414	1,658	2,245
Other countries	899	996	525	347

**22.6 Contingent liabilities of the Government of Canada<sup>1</sup>, years ended March 31 (million dollars)**

Item	1982	1983	1984	1985
Total explicit guarantees	3,525	4,578	3,730	4,484
Pending and threatened litigation	2,136	2,316	2,859	3,724
<b>Total contingent liabilities</b>	<b>5,661</b>	<b>6,894</b>	<b>6,589</b>	<b>8,209</b>

<sup>1</sup> For more details see the *Public Accounts of Canada*.**22.7 Revenue collected (net of refunds) by Revenue Canada, Taxation, years ended March 31 (million dollars)**

Year	Income tax <sup>1</sup>		Total collections
	Individual <sup>2</sup>	Corporation	
1980	27,935	8,512	32,104
1981	33,888	9,538	38,318
1982	41,998	9,317	45,148
1983	46,264	7,594	48,461
1984	50,094	7,964	50,015
1985	53,148	10,047	55,227

<sup>1</sup> Includes transfers to Old Age Security Fund.<sup>2</sup> Includes non-resident withholding tax and Canada Pension Plan contributions by employers, employees and self-employed persons and unemployment insurance premiums.

**22.8 Personal income tax payable on various levels of income, 1984 (dollars)**

Status	Income	Net federal income tax	Basic provincial income tax
Single taxpayer - no dependents	5,000	—	—
	8,000	204	178
	10,000	532	234
	15,000	1,421	625
	20,000	2,357	1,037
	30,000	4,611	2,029
	40,000	7,244	3,187
	50,000	10,313	4,537
	100,000	26,723	11,758
Married taxpayer - no children	5,000	—	—
	8,000	—	—
	10,000	—	65
	15,000	771	339
	20,000	1,674	737
	30,000	3,765	1,657
	40,000	6,288	2,787
	50,000	9,272	4,080
	100,000	25,544	11,239
Married taxpayer - two children under age 18	5,000	-734	—
	8,000	-734	—
	10,000	-734	26
	15,000	-289	196
	20,000	607	766
	30,000	2,822	1,674
	40,000	5,807	2,678
	50,000	8,683	3,909
	100,000	25,129	11,145

Note: The taxpayer is assumed to be under 65, and to receive wage and salary income only. Family allowances, at 1984 rates, are added to income in computing tax. In addition, the personal exemptions, the general employment expense allowance, and CPP (1984 rates) and UI (1984 rates) contributions are deducted in calculating tax. The employment expense deduction is 20% maximum \$500. The child tax credit is included in federal income tax. The calculation of provincial tax takes into account the 1984 provincial tax rates. Provincial taxes are calculated at a rate of 44% of federal basic tax.

**22.9 Number of taxpayers, assessed income and income tax payable<sup>1</sup>, 1984**

Province	Taxpayers No.	Total income assessed \$'000,000	Federal tax payable \$'000,000	Provincial tax payable \$'000,000	Average federal tax paid \$'000,000
Newfoundland	205,387	3,798	350	236	1,500
Prince Edward Island	52,142	922	77	48	1,200
Nova Scotia	317,740	7,332	774	483	1,600
New Brunswick	289,359	5,687	534	348	1,500
Quebec	2,580,952	60,443	6,640	11 <sup>2</sup>	2,200
Ontario	4,036,191	105,069	12,464	6,700	2,400
Manitoba	423,952	9,968	1,029	628	2,000
Saskatchewan	380,296	9,348	1,006	569	2,200
Alberta	1,001,002	26,770	3,340	1,515	2,900
British Columbia	1,306,684	32,257	3,717	1,848	2,600
Yukon	11,109	272	33	16	2,700
Northwest Territories	19,533	523	69	31	2,600
Canada	10,650,238	263,080	30,150	12,467	2,300

<sup>1</sup> Taxable returns.

<sup>2</sup> *Statistiques fiscales des particuliers du Québec*, Ministry of Revenue, Quebec, 1984.



**22.10 Taxpayers in selected cities, income and tax<sup>1</sup>, 1984**

City and province	Taxpayers No.	Total income assessed \$'000	Federal tax payable \$'000
Brantford, Ont.	34,108	772,649	129,844
Calgary, Alta.	304,051	8,651,013	1,700,111
Dartmouth, NS	36,631	907,620	171,311
Edmonton, Alta.	265,238	6,765,842	1,228,646
Guelph, Ont.	36,768	900,281	159,165
Halifax, NS	54,168	1,381,041	261,848
Hamilton, Ont.	131,468	3,165,614	556,147
Hull, Que.	25,575	575,267	65,185
Kingston, Ont.	40,673	1,024,192	184,543
Kitchener-Waterloo, Ont.	67,793	1,583,503	274,953
London, Ont.	121,298	3,041,003	546,678
Moncton, NB	31,759	652,761	110,391
Montreal, Que.	449,288	10,109,348	1,129,328
New Westminster, BC	19,175	437,317	75,010
Niagara Falls, Ont.	29,381	692,494	119,683
Oakville, Ont.	39,349	1,264,497	272,945
Oshawa, Ont.	55,536	1,414,858	265,596
Ottawa, Ont.	176,169	4,999,407	966,315
Peterborough, Ont.	30,848	723,263	121,253
Quebec, Que.	71,957	1,642,125	181,231
Regina, Sask.	80,288	2,059,960	385,614
Saint John, NB	36,535	745,675	121,136
St. Catharines, Ont.	52,287	1,339,870	244,099
St. John's, Nfld.	43,415	953,302	175,485
Sarnia, Ont.	30,543	862,358	171,533
Saskatoon, Sask.	76,859	1,912,199	342,395
Sault Ste Marie, Ont.	33,510	837,140	147,809
Sherbrooke, Que.	32,952	721,816	77,629
Sudbury-Copper Cliff, Ont.	37,954	932,830	164,890
Sydney-Glace Bay, NS	14,684	331,271	58,024
Thunder Bay, Ont.	53,672	1,370,627	253,710
Toronto, Ont.	558,959	14,562,008	2,768,608
Trois-Rivières, Que.	21,178	497,210	56,686
Vancouver, BC	230,417	5,796,658	1,052,013
Victoria, BC	112,044	2,624,390	427,200
Windsor, Ont.	87,130	2,284,475	425,344
Winnipeg, Man.	275,272	6,469,496	1,117,619

<sup>1</sup> Taxable returns.**22.11 Taxfilers by occupation, income assessed and tax, 1984**

Occupational group	Taxfilers No.	Total income assessed \$'000	Federal tax payable \$'000
Employees	10,312,882	217,790,886	24,612,623
Farmers	271,740	4,308,402	280,100
Fishermen	35,439	513,411	37,720
Self-employed professionals			
Accountants	11,338	629,472	98,539
Medical doctors and surgeons	33,329	3,186,163	646,848
Dentists	9,091	678,783	125,237
Lawyers and notaries	20,678	1,347,519	237,841
Consulting engineers and architects	4,199	171,127	27,535
Entertainers and artists	20,611	254,304	24,934
Other professionals	55,996	1,357,645	166,131
Salespeople	35,784	627,559	63,593
Total business proprietors	521,641	7,059,981	611,547
Investors	1,041,401	20,529,489	1,794,212
Property owners	134,321	2,333,095	262,569
Pensioners	1,185,578	14,882,553	751,336
All others	1,858,153	8,005,904	409,775
Total	15,552,181	283,676,293	30,150,540

**22.12 Corporation income taxes, by industrial division (million dollars)**

Year and industrial division	Book profit before taxes	Taxable income	Federal income taxes	Provincial income taxes	Total income taxes
1981 total	47,895.4	29,364.5	8,061.3	3,308.8	11,370.1
1982 total	30,650.6	26,072.1	7,192.4	2,490.4	9,682.9
1983 total	40,093.1	31,181.5	7,777.9	2,971.6	10,569.5
1984					
Agriculture, forestry and fishing	508.0	619.3	74.2	37.3	111.5
Mining	9,393.7	7,123.7	2,041.2	655.8	2,697.0
Manufacturing	15,684.5	12,185.7	2,545.0	1,309.9	3,854.9
Construction	1,135.8	1,448.5	301.7	77.1	378.8
Transportation, communications and other utilities	5,472.0	3,841.1	982.1	419.4	1,401.5
Wholesale trade	3,401.7	3,142.3	796.5	264.8	1,061.3
Retail trade	2,844.2	2,357.6	481.8	144.5	626.3
Finance	15,287.3	4,460.6	1,129.9	441.2	1,571.2
Services	3,189.1	3,173.1	612.3	222.0	834.3
Total	56,916.4	38,351.9	8,964.7	3,572.1	12,536.8

**22.13 Taxable income of corporations, by province (million dollars)**

Province or territory	1980	1981	1982	1983	1984
Newfoundland	280.4	336.4	224.8	285.6	373.3
Prince Edward Island	52.5	62.5	60.6	64.5	86.4
Nova Scotia	565.5	521.5	421.2	488.3	558.2
New Brunswick	519.2	419.5	308.1	404.7	523.9
Quebec	5,502.0	5,330.1	4,456.2	5,633.1	7,386.4
Ontario	10,291.5	10,405.7	9,079.9	11,539.0	15,073.8
Manitoba	905.0	869.3	736.6	791.1	911.6
Saskatchewan	972.8	958.1	776.8	860.0	946.9
Alberta	6,167.6	6,727.2	6,926.4	8,259.8	9,153.9
British Columbia	3,522.1	3,163.4	2,296.1	2,363.4	2,671.4
Yukon	46.7	29.0	18.4	15.6	26.7
Northwest Territories	100.0	57.8	54.9	90.5	140.3
Other <sup>1</sup>	499.4	484.0	712.2	386.0	499.2
Canada	29,424.6	29,364.5	26,072.1	31,181.5	38,351.9

<sup>1</sup> Includes taxable income of corporations, foreign operations and non-resident-owned investment corporations.

**22.14 Excise taxes collected, by commodity, years ended March 31, 1983-84 to 1985-86 (million dollars)**

Commodity	1983-84			1984-85			1985-86		
	Imports	Domestic	Total	Imports	Domestic	Total	Imports	Domestic	Total
Sales tax	1,341.5	6,101.0	7,442.5	1,509.0	6,551.4	8,060.4	1,538.5	8,269.8	9,808.3
Gasoline	0.5	470.5	471.0	0.3	476.9	477.2	0.1	878.4	878.5
Aviation and diesel fuel	...	...	...	...	...	...	...	97.3	97.3
Other excise taxes									
Cigars	0.4	6.7	7.1	0.2	6.5	6.7	0.7	8.9	9.6
Cigarettes	4.4	503.7	508.1	3.7	562.8	566.5	5.8	1,005.0	1,010.8
Manufactured tobacco	4.0	17.3	21.3	4.2	18.9	23.1	5.4	38.1	43.5
Jewellery/clocks/watches, etc.	6.9	40.0	46.9	9.1	42.2	51.3	10.4	49.1	59.5
Lighters, matches and smokers' accessories	1.8	3.4	5.2	0.8	3.7	4.5	1.5	4.0	5.5
Playing cards	0.7	1.1	1.8	0.3	1.2	1.5	0.3	1.2	1.5
Coin games	3.4	0.4	3.8	1.5	...	1.5	1.0	...	1.0
Wines	38.0	47.2	85.2	43.8	53.9	97.7	45.4	56.6	102.0
Automobiles	0.5	0.2	0.7	0.2	0.9	1.1	0.5	0.6	1.1
Automotive air conditioners	4.2	23.5	27.7	3.0	35.4	38.4	3.4	50.7	54.1
Licences, interest and miscellaneous	0.9	19.7	20.6	2.6	12.6	15.2	5.0	12.4	17.4
Total	1,407.2	7,234.6	8,641.8	1,578.8	7,766.3	9,345.1	1,617.9	10,472.1	12,090.0

## 22.15 Special excise tax rates as at December 1985 and December 1986

Item	Tax	
	December 1985	December 1986
Cigarettes (per 5 cigarettes)	9.695¢	10.277¢
Cigars	30.0%	30.0%
Pipe tobacco, cut tobacco, snuff	\$5.90/kg	\$6.254/kg
Jewellery, including articles of ivory, amber, shell, precious or semi-precious stones, clocks and watches <sup>1</sup> , goldsmiths' and silversmiths' products, except gold-plated or silver-plated ware for the preparation or serving of food or drink		
Lighters	10%	10%
Playing cards (per pack)	10¢	10¢
Slot machines — coin-, disc- or token-operated games or amusement devices	20¢	20¢
Matches	10%	10%
Tobacco, pipes, cigar and cigarette holders and cigarette rolling devices	4¢ for each 1,000	4¢ for each 1,000
Tobacco	10%	10%
On manufactured tobacco of all descriptions except cigarettes, per kilogram actual mass	\$2.207	\$2.339
On cigarettes having a mass of not more than one thousand three hundred and sixty-one grams (1 361 g) per thousand	\$9.547	\$10.120
On cigarettes having a mass of more than one thousand three hundred and sixty-one grams (1 361 g) per thousand	\$11.27	\$11.946
On cigars, per thousand	\$5.260	\$5.576
On Canadian raw leaf tobacco when sold for consumption, per kilogram actual mass	\$7.40¢	60.844¢
Distilled spirits, per litre of absolute ethyl alcohol distilled in Canada	\$10.32	\$10.733
Beer		
On all beer or malt liquor containing more than 2.5% absolute ethyl alcohol by volume per hectolitre	\$18.58	\$19.323
On all beer or malt liquor containing not more than 1.2% but not more than 2.5% absolute ethyl alcohol by volume per hectolitre	\$9.288	\$9.660
On all beer or malt liquor containing not more than 1.2% absolute ethyl alcohol by volume per hectolitre	\$1.720	\$1.789
Wines <sup>2</sup> (additional excise taxes) <sup>3</sup>		
Wines of all kinds containing not more than 1.2% absolute alcohol by volume	1.72¢/L	1.79¢/L
Wines of all kinds containing not more than 7% absolute alcohol by volume	20.64¢/L	21.47¢/L
Wines of all kinds containing more than 7% absolute alcohol by volume	43.04¢/L	44.72¢/L
Insurance premiums paid to British or foreign companies not authorized to transact business in Canada or to non-resident agents of authorized British or foreign companies	10%	10%
Air transportation tax on tickets purchased in or outside of Canada for transportation of persons		
(a) in the taxation area <sup>4</sup> (including travel in Canada)	9% no max.	10% max. \$50.00
(b) beginning in Canada and ending outside the taxation area <sup>5</sup>	\$15.00	\$15.00
Automobiles, station wagons and vans designed for use as passenger vehicles — tax applies to vehicles which exceed the specified mass for the vehicle type <sup>6</sup>		
Automobile mass limit 2 007 kg		
Station wagon and van mass limit 2 268 kg		
Tax rates:		
— for the portion of the mass that exceeds the mass limit but not more than 45 kg <sup>7</sup>	\$30.00	\$30.00
— for the portion of the mass that exceeds the mass limit by 45 kg but not more than 90 kg	\$40.00	\$40.00
— for the portion of the mass that exceeds the mass limit by 90 kg but not more than 135 kg	\$50.00	\$50.00
— for each additional 45 kg in excess of the mass limit plus 135 kg	\$60.00	\$60.00
Gasoline for personal use	3.5¢/L	3.5¢/L
Diesel fuel and aviation jet fuel	2.0¢/L	2.0¢/L
Air conditioners designed for use in automobiles, station wagons, vans or trucks	\$100	\$100

Almost all of the foregoing items, except insurance premiums and air transportation, are also subject to the general sales tax. Alcohol and tobacco products are subject to additional taxes under the Excise Act (referred to as excise duties).

<sup>1</sup> Special excise tax only applies on the amount by which the sale price or the duty-paid value of the clock or watch exceeds \$50.

<sup>2</sup> These taxes apply only to wines manufactured in Canada. The customs tariff on wines includes a levy on imported wines to correspond to the taxes on domestic production.

<sup>3</sup> These taxes apply to both domestic and imported wines.

<sup>4</sup> Includes Canada, the islands of St. Pierre and Miquelon, and the US except Hawaii.

<sup>5</sup> Reduced to \$4 for a child under 12 travelling at a fare of 50% or more below the applicable fare; nil if the fare is 90% below the applicable fare.

<sup>6</sup> Excludes ambulances, hearses, and vehicles for police or firefighting.

<sup>7</sup> The weight limit is 4,425 lb. for automobiles and 5,000 lb. for station wagons and vans.

**22.16 Liabilities of provincial and territorial governments, years ended March 31 (million dollars)**

Year and province or territory		Short-term bank loans and overdrafts	Payables	Loans and advances	Treasury bills	Savings bonds	Bonds and debentures	Other securities	Deposits and other liabilities	Total
Canada	1981	695	5,171	2,675	663	1,299	46,063	1,388	2,495	60,449
	1982	590	6,876	2,914	1,265	987	55,135	2,031	2,861	72,659
	1983	389	8,389	3,008	3,125	1,497	64,240	2,068	3,430	86,146
1984										
Newfoundland		4	102	119	127	—	2,888	59	35	3,334
Prince Edward Island		—	37	23	—	—	390	—	35	485
Nova Scotia		72	280	208	—	—	3,727	87	5	4,379
New Brunswick		33	238	50	114	—	2,421	—	327	3,183
Quebec		225	5,874	1,699	1,485	1,935	13,947	1,467	339	26,971
Ontario		—	114	459	650	—	28,988	292	824	31,327
Manitoba		55	279	244	130	4	4,611	—	430	5,753
Saskatchewan		48	35	65	452	—	4,816	297	109	5,822
Alberta		—	1,428	29	650	—	6,294	280	661	9,342
British Columbia		41	959	50	780	—	4,167	749	1,124	7,870
Yukon		—	25	11	—	—	—	—	3	39
Northwest Territories		15	47	17	—	—	—	—	2	81
Canada		493	9,418	2,974	4,388	1,939	72,249	3,231	3,894	98,586

**22.17 Liabilities guaranteed by provincial and territorial governments<sup>1</sup>, years ended March 31 (million dollars)**

Year and province or territory		Bonds and debentures	Bank loans	Other	Total
Canada	1981	37,842	1,461	3,997	43,300
	1982	43,467	1,635	4,582	49,684
	1983	48,564	2,208	5,113	55,885
1984					
Newfoundland		793	117	122	1,032
Prince Edward Island		2	10	6	18
Nova Scotia		1,278	426	18	1,722
New Brunswick		1,793	115	455	2,363
Quebec		18,203	1,268	891	20,362
Ontario		11,823	209	680	12,712
Manitoba		1,641	—	2	1,643
Saskatchewan		65	114	50	229
Alberta		6,142	141	3,286	9,569
British Columbia		9,933	—	630	10,563
Yukon		—	—	7	7
Northwest Territories		—	—	102	102
Canada		51,673	2,400	6,249	60,322

<sup>1</sup> Excludes liabilities of provincial government special funds guaranteed by provincial governments but considered as provincial government liabilities.



## 22.18 Bonds and debentures<sup>1</sup>, by market, of provincial governments, year ended March 31, 1984 (million dollars)

Province	Domestic	Foreign				Total
		Traditional			International	
		United States	Europe	Other		
Newfoundland	1,607	750	77	—	513	2,947
Prince Edward Island	389	1	—	—	—	390
Nova Scotia	2,090	980	64	—	593	3,727
New Brunswick	1,576	609	57	43	135	2,420
Quebec	12,042	986	880	458	1,515	15,881
Ontario	22,490	5,082	12	—	—	27,584
Manitoba	2,405	666	667	386	489	4,613
Saskatchewan	3,055	602	124	—	675	4,456
Alberta	6,234	60	—	—	—	6,294
British Columbia	3,897	144	—	—	125	4,166
Total	55,785	9,880	1,881	887	4,045	72,478

<sup>1</sup> Includes savings bonds.

## 22.19 Summary of transfers by the federal government to provincial governments, territories and local governments<sup>1</sup>, years ended March 31 (million dollars)

Payee and year	General purpose transfers	Specific purpose transfers	Total
ALL PROVINCES AND TERRITORIES			
1981	4,229	8,568	12,797
1982	5,089	9,261	14,350
1983	5,974	10,203	16,177
1984	6,331	12,139	18,470
SPECIFIC PROVINCES AND TERRITORIES			
1985			
Newfoundland	574	384	958
Prince Edward Island	159	102	261
Nova Scotia	639	502	1,141
New Brunswick	553	481	1,034
Quebec	3,184	3,315	6,499
Ontario	129	4,300	4,429
Manitoba	499	654	1,153
Saskatchewan	2	933	935
Alberta	197	2,834	3,031
British Columbia	123	1,834	1,957
Yukon	114	18	132
Northwest Territories	383	70	453
Total	6,556	15,427	21,983
	General purpose transfers (grants in lieu of taxes)	Specific purpose transfers	Total
LOCAL GOVERNMENTS			
1981	158	152	310
1982	220	129	349
1983	214	90	304
1984	229	159	388

### 22.19 Summary of transfers by the federal government to provincial governments, territories and local governments<sup>1</sup>, years ended March 31 (million dollars) (concluded)

	General purpose transfers (grants in lieu of taxes)	Specific purpose transfers	Total
LOCAL GOVERNMENTS IN SPECIFIC PROVINCES AND TERRITORIES			
1985			
Newfoundland	3	12	15
Prince Edward Island	1	—	1
Nova Scotia	19	4	23
New Brunswick	3	11	14
Quebec	58	13	71
Ontario	129	49	178
Manitoba	11	8	19
Saskatchewan	6	2	8
Alberta	15	2	17
British Columbia	27	14	41
Yukon	1	1	2
Northwest Territories	2	1	3
Total	275	117	392
Total of transfers to provincial governments, territories and local governments			
1981			13,107
1982			14,699
1983			16,481
1984			18,858
1985			22,375

<sup>1</sup> Further details available in *Federal government finance* (Statistics Canada 68-211).

### 22.20 Gross general revenue of provincial and territorial governments, years ended March 31 (million dollars)

Province or territory and source	1980	1981	1982	1983	1984
Newfoundland	1,362	1,483	1,632	1,758	1,948
Prince Edward Island	289	326	374	398	442
Nova Scotia	1,684	1,898	2,179	2,334	2,599
New Brunswick	1,515	1,604	1,818	2,011	2,292
Quebec	15,865	17,780	21,603	23,734	26,297
Ontario	15,921	17,335	19,733	21,533	23,713
Manitoba	2,084	2,284	2,691	3,039	3,509
Saskatchewan	2,363	2,833	3,140	3,306	3,613
Alberta	8,569	9,997	11,688	12,955	13,484
British Columbia	6,232	6,817	8,055	8,784	9,629
Yukon	110	123	152	171	193
Northwest Territories	301	433	401	462	568
Total	56,295	62,913	73,466	80,485	88,287
Gross general revenue by source:					
Income tax					
Individual	11,637	13,420	16,498	18,952	19,021
Corporation	3,034	3,602	3,678	2,348	2,988
General sales tax	5,766	6,211	7,041	7,734	9,059
Motive fuel tax	1,782	1,862	2,593	3,008	3,229
Health insurance premiums	1,789	1,937	2,801	3,129	3,344
Social insurance levies	1,633	1,723	2,101	2,365	2,487
Natural resource revenue	6,737	7,342	6,734	6,763	7,601
Privileges, licences and permits	1,496	1,562	1,736	1,837	1,931
Liquor profits	1,200	1,406	1,484	1,740	1,855
Other revenue from own sources	9,176	10,850	14,040	16,848	18,018
General purpose transfers from other levels of government	3,750	3,998	5,054	6,082	6,201
Specific purpose transfers from other levels of government	8,295	9,000	9,706	9,679	12,553
Total	56,295	62,913	73,466	80,485	88,287

## 22.21 Gross general expenditure of provincial and territorial governments, years ended March 31 (million dollars)

Province or territory and function	1980	1981	1982	1983	1984
Newfoundland	1,501	1,636	1,701	1,973	2,234
Prince Edward Island	301	343	368	422	435
Nova Scotia	1,751	2,042	2,598	2,730	2,943
New Brunswick	1,474	1,687	1,959	2,392	2,534
Quebec	16,678	19,361	21,809	24,609	27,045
Ontario	16,606	18,168	20,862	23,932	26,136
Manitoba	2,106	2,396	2,938	3,458	4,033
Saskatchewan	2,283	2,636	3,038	3,602	3,855
Alberta	6,789	6,898	8,960	12,462	12,363
British Columbia	5,639	6,838	8,015	9,853	10,559
Yukon	126	125	145	164	177
Northwest Territories	289	313	375	459	517
<b>Total</b>	<b>55,543</b>	<b>62,443</b>	<b>72,768</b>	<b>86,056</b>	<b>92,831</b>
Gross general expenditure by function:					
General government	3,678	3,838	3,823	4,289	5,023
Protection of persons and property	1,794	2,053	2,408	2,629	2,803
Transportation and communications	3,986	4,482	5,162	6,091	5,942
Health	12,891	15,160	18,072	20,998	22,972
Social welfare	7,999	9,647	10,835	13,288	14,926
Education	11,813	13,460	15,955	18,329	19,525
Resources, conservation and industrial development	3,104	3,801	4,478	5,976	5,964
Regional planning and development	629	618	679	776	804
Debt charges	4,071	4,838	5,908	7,709	8,442
General purpose transfers to local governments	2,516	1,231	1,598	1,631	1,738
All other expenditures	2,762	3,315	3,850	4,340	4,692
<b>Total</b>	<b>55,243</b>	<b>62,443</b>	<b>72,768</b>	<b>86,056</b>	<b>92,831</b>

## 22.22 General revenue of local governments, by source, years ended December 31 (million dollars)

Local governments in provinces and territories	1979	1980	1981	1982	1983
Newfoundland	127	155	179	184	186
Prince Edward Island	69	72	79	94	95
Nova Scotia	710	802	912	1,036	1,114
New Brunswick	184	194	225	257	282
Quebec	6,209	7,456	8,190	8,567	8,780
Ontario	9,191	10,194	11,738	13,114	14,273
Manitoba	961	1,122	1,254	1,438	1,543
Saskatchewan	1,025	1,073	1,231	1,347	1,522
Alberta	3,765	3,443	4,239	4,909	5,302
British Columbia	2,325	2,700	3,280	3,619	3,715
Yukon	13	14	17	16	20
Northwest Territories	36	41	56	58	65
<b>Canada</b>	<b>24,614</b>	<b>27,266</b>	<b>31,400</b>	<b>34,639</b>	<b>36,897</b>
Revenue by source					
Taxes	8,478	9,695	11,141	11,998	12,954
Grants in lieu of taxes	433	643	734	800	821
Sales of goods and services	2,027	2,426	2,921	3,124	3,416
Rentals	147	181	200	230	295
Concessions and franchises	36	36	36	43	56
Licences and permits	115	132	156	118	154
Remittances from own enterprises	127	147	144	174	216
Interest	463	598	922	981	768
Fines	165	215	258	325	341
Miscellaneous	519	630	641	543	511
General purpose transfers					
Provincial governments	1,806	1,235	1,231	1,252	1,246
Specific purpose transfers					
Federal government	209	187	186	158	241
Provincial governments	10,089	11,141	12,830	14,893	15,878
<b>Total, general revenue</b>	<b>24,614</b>	<b>27,266</b>	<b>31,400</b>	<b>34,639</b>	<b>36,897</b>

**22.23 General expenditure of local governments, years ended December 31 (million dollars)**

Local governments in provinces and territories	1979	1980	1981	1982	1983
Newfoundland	147	179	181	219	217
Prince Edward Island	73	71	87	93	93
Nova Scotia	752	835	917	990	1,085
New Brunswick	202	208	231	267	295
Quebec	6,416	7,708	8,519	8,610	9,280
Ontario	9,128	10,048	11,338	12,896	14,077
Manitoba	970	1,110	1,214	1,334	1,476
Saskatchewan	1,062	1,094	1,258	1,350	1,522
Alberta	3,199	3,906	4,741	5,690	5,494
British Columbia	2,546	2,856	3,472	3,878	3,944
Yukon	14	16	17	16	19
Northwest Territories	42	40	53	57	62
Canada	24,551	28,071	32,028	35,400	37,564
Expenditures by function:					
General government	1,164	1,464	1,668	1,983	2,053
Protection of persons and property	1,828	2,128	2,477	2,845	3,008
Transportation and communications	2,817	3,304	3,594	3,895	3,596
Environment	2,032	2,399	2,585	2,664	2,785
Health	1,196	1,421	1,702	1,969	2,200
Social welfare	758	848	938	1,108	1,303
Regional planning and development	312	322	399	383	348
Housing - general assistance	42	53	119	197	121
Resource conservation and industrial development	263	324	349	396	341
Recreation and culture	1,463	1,781	1,973	2,135	2,196
Education - primary and secondary	10,537	11,611	13,372	14,556	15,830
Fiscal services	2,089	2,347	2,711	3,070	3,612
Other services	50	69	141	199	171
Total, general expenditure	24,551	28,071	32,028	35,400	37,564

**22.24 Direct debt of local governments, years ended December 31 (million dollars)**

Year and province or territory	Payables	Bank loans	Advances	Bonds and debentures	Other liabilities	Total direct debt
Total, 1981	2,662	2,131	1,097	20,461	769	27,120
Total, 1982	2,769	1,799	1,339	22,899	873	29,679
1983						
Newfoundland	28	136	1	302	4	471
Prince Edward Island	4	4	4	49	--	61
Nova Scotia	78	20	43	428	27	596
New Brunswick	28	16	9	308	16	377
Quebec	732	823	543	8,545	267	10,910
Ontario	1,017	143	649	4,460	168	6,437
Manitoba	172	18	31	820	16	1,057
Saskatchewan	87	17	44	384	53	585
Alberta	627	27	319	4,787	119	5,879
British Columbia	338	61	259	4,010	122	4,790
Yukon	3	--	--	11	--	14
Northwest Territories	6	--	--	19	3	28
Total	3,120	1,265	1,902	24,123	795	31,205



**22.25 Government employment and payrolls, by province and territory, March 31, 1986**

Province or territory	Federal government		Provincial governments		Local governments	
	Number of employees	Quarterly payroll <sup>1</sup> \$'000	Number of employees	Quarterly payroll <sup>1</sup> \$'000	Number of employees	Quarterly payroll <sup>1</sup> \$'000
Newfoundland	8,103	50,119	21,558	112,268	2,546	13,114
Prince Edward Island	3,405	22,788	4,328	23,794	318	1,341
Nova Scotia	32,874	217,785	21,366	118,870	6,595	35,399
New Brunswick	13,265	84,745	32,157	197,939	3,928	23,392
Quebec	67,883	448,600	105,158	756,553	60,440	378,607
Ontario	146,705	1,035,026	123,573	791,079	135,380	763,954
Manitoba	18,469	118,299	18,451	119,402	9,707	71,619
Saskatchewan	10,622	72,059	22,579	153,412	10,290	57,685
Alberta	25,351	168,219	71,293	442,604	30,719	215,017
British Columbia	36,742	247,208	58,826	336,551	29,503	184,224
Yukon	1,157	7,675	2,265	18,248	233	1,580
Northwest Territories	2,323	15,000	4,447	40,012	952	5,046
Canada	366,899	2,487,524	486,001	3,110,732	290,611	1,750,978

<sup>1</sup> Three months ending March 31, 1986.**Sources**

22.1 - 22.6, 22.14, 22.16 - 22.25 Public Institutions Division, Statistics Canada.

22.7 - 22.11 Statistical Services Division, Revenue Canada, Taxation.

22.12, 22.13 Industrial Organization and Finance Division, Statistics Canada.

22.15 Tax Analysis and Commodity Division, Department of Finance.



CHAPTER 23

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# REVIEW OF THE ECONOMY

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THEN



"... Canada has in the past year or two maintained her position as one of the greatest exporting nations of the world. In the calendar year 1922, Canada... stood fifth among the exporting nations of the world, surpassed only by the four great industrial countries, the United States, the United Kingdom, France and Germany." (1922-23)

"Not the least of the attractions of the Dominion are the moderate cost of living and low rate of taxation. Whatever may be the material, intellectual or social advantages of a country, if the people are oppressed by financial or other burdens, these advantages might as well not exist so far as the masses are concerned, for they can only be enjoyed by the opulent few. But we know not where to find a country in which the necessities of life are cheaper, or the fiscal burdens press more lightly upon the community." (1871)

### Finances of the Dominion.

The following statement of Revenue of the Dominion for the 1871 year, 1871, is compiled from the Monthly Returns published in the official Gazette, may be accepted as an approximate correct statement of the actual revenue for the year.

REVENUE.	
1871	
July	\$2,117,502
August	2,132,306
September	2,151,511
October	2,170,716
November	2,189,921
December	2,209,126
1872	
January	1,809,324
February	1,824,134
March	1,838,944
April	1,853,754
May	1,868,564
June	1,883,374
July	1,898,184
August	1,912,994
September	1,927,804
October	1,942,614
November	1,957,424
December	1,972,234
1873	
January	1,987,044
February	1,998,854
March	2,010,664
April	2,022,474
May	2,034,284
June	2,046,094
July	2,057,904
August	2,069,714
September	2,081,524
October	2,093,334
November	2,105,144
December	2,116,954
1874	
January	2,128,764
February	2,140,574
March	2,152,384
April	2,164,194
May	2,176,004
June	2,187,814
July	2,199,624
August	2,211,434
September	2,223,244
October	2,235,054
November	2,246,864
December	2,258,674
1875	
January	2,270,484
February	2,282,294
March	2,294,104
April	2,305,914
May	2,317,724
June	2,329,534
July	2,341,344
August	2,353,154
September	2,364,964
October	2,376,774
November	2,388,584
December	2,400,394
1876	
January	2,412,204
February	2,424,014
March	2,435,824
April	2,447,634
May	2,459,444
June	2,471,254
July	2,483,064
August	2,494,874
September	2,506,684
October	2,518,494
November	2,530,304
December	2,542,114
1877	
January	2,553,924
February	2,565,734
March	2,577,544
April	2,589,354
May	2,601,164
June	2,612,974
July	2,624,784
August	2,636,594
September	2,648,404
October	2,660,214
November	2,672,024
December	2,683,834
1878	
January	2,695,644
February	2,707,454
March	2,719,264
April	2,731,074
May	2,742,884
June	2,754,694
July	2,766,504
August	2,778,314
September	2,790,124
October	2,801,934
November	2,813,744
December	2,825,554
1879	
January	2,837,364
February	2,849,174
March	2,860,984
April	2,872,794
May	2,884,604
June	2,896,414
July	2,908,224
August	2,920,034
September	2,931,844
October	2,943,654
November	2,955,464
December	2,967,274
1880	
January	2,979,084
February	2,990,894
March	3,002,704
April	3,014,514
May	3,026,324
June	3,038,134
July	3,049,944
August	3,061,754
September	3,073,564
October	3,085,374
November	3,097,184
December	3,108,994
1881	
January	3,120,804
February	3,132,614
March	3,144,424
April	3,156,234
May	3,168,044
June	3,179,854
July	3,191,664
August	3,203,474
September	3,215,284
October	3,227,094
November	3,238,904
December	3,250,714
1882	
January	3,262,524
February	3,274,334
March	3,286,144
April	3,297,954
May	3,309,764
June	3,321,574
July	3,333,384
August	3,345,194
September	3,357,004
October	3,368,814
November	3,380,624
December	3,392,434
1883	
January	3,404,244
February	3,416,054
March	3,427,864
April	3,439,674
May	3,451,484
June	3,463,294
July	3,475,104
August	3,486,914
September	3,498,724
October	3,510,534
November	3,522,344
December	3,534,154
1884	
January	3,545,964
February	3,557,774
March	3,569,584
April	3,581,394
May	3,593,204
June	3,605,014
July	3,616,824
August	3,628,634
September	3,640,444
October	3,652,254
November	3,664,064
December	3,675,874
1885	
January	3,687,684
February	3,699,494
March	3,711,304
April	3,723,114
May	3,734,924
June	3,746,734
July	3,758,544
August	3,770,354
September	3,782,164
October	3,793,974
November	3,805,784
December	3,817,594
1886	
January	3,829,404
February	3,841,214
March	3,853,024
April	3,864,834
May	3,876,644
June	3,888,454
July	3,900,264
August	3,912,074
September	3,923,884
October	3,935,694
November	3,947,504
December	3,959,314
1887	
January	3,971,124
February	3,982,934
March	3,994,744
April	4,006,554
May	4,018,364
June	4,030,174
July	4,041,984
August	4,053,794
September	4,065,604
October	4,077,414
November	4,089,224
December	4,101,034
1888	
January	4,112,844
February	4,124,654
March	4,136,464
April	4,148,274
May	4,160,084
June	4,171,894
July	4,183,704
August	4,195,514
September	4,207,324
October	4,219,134
November	4,230,944
December	4,242,754
1889	
January	4,254,564
February	4,266,374
March	4,278,184
April	4,289,994
May	4,301,804
June	4,313,614
July	4,325,424
August	4,337,234
September	4,349,044
October	4,360,854
November	4,372,664
December	4,384,474
1890	
January	4,396,284
February	4,408,094
March	4,419,904
April	4,431,714
May	4,443,524
June	4,455,334
July	4,467,144
August	4,478,954
September	4,490,764
October	4,502,574
November	4,514,384
December	4,526,194
1891	
January	4,538,004
February	4,549,814
March	4,561,624
April	4,573,434
May	4,585,244
June	4,597,054
July	4,608,864
August	4,620,674
September	4,632,484
October	4,644,294
November	4,656,104
December	4,667,914
1892	
January	4,679,724
February	4,691,534
March	4,703,344
April	4,715,154
May	4,726,964
June	4,738,774
July	4,750,584
August	4,762,394
September	4,774,204
October	4,786,014
November	4,797,824
December	4,809,634
1893	
January	4,821,444
February	4,833,254
March	4,845,064
April	4,856,874
May	4,868,684
June	4,880,494
July	4,892,304
August	4,904,114
September	4,915,924
October	4,927,734
November	4,939,544
December	4,951,354
1894	
January	4,963,164
February	4,974,974
March	4,986,784
April	4,998,594
May	5,010,404
June	5,022,214
July	5,034,024
August	5,045,834
September	5,057,644
October	5,069,454
November	5,081,264
December	5,093,074
1895	
January	5,104,884
February	5,116,694
March	5,128,504
April	5,140,314
May	5,152,124
June	5,163,934
July	5,175,744
August	5,187,554
September	5,199,364
October	5,211,174
November	5,222,984
December	5,234,794
1896	
January	5,246,604
February	5,258,414
March	5,270,224
April	5,282,034
May	5,293,844
June	5,305,654
July	5,317,464
August	5,329,274
September	5,341,084
October	5,352,894
November	5,364,704
December	5,376,514
1897	
January	5,388,324
February	5,400,134
March	5,411,944
April	5,423,754
May	5,435,564
June	5,447,374
July	5,459,184
August	5,470,994
September	5,482,804
October	5,494,614
November	5,506,424
December	5,518,234
1898	
January	5,530,044
February	5,541,854
March	5,553,664
April	5,565,474
May	5,577,284
June	5,589,094
July	5,600,904
August	5,612,714
September	5,624,524
October	5,636,334
November	5,648,144
December	5,659,954
1899	
January	5,671,764
February	5,683,574
March	5,695,384
April	5,707,194
May	5,719,004
June	5,730,814
July	5,742,624
August	5,754,434
September	5,766,244
October	5,778,054
November	5,789,864
December	5,801,674
1900	
January	5,813,484
February	5,825,294
March	5,837,104
April	5,848,914
May	5,860,724
June	5,872,534
July	5,884,344
August	5,896,154
September	5,907,964
October	5,919,774
November	5,931,584
December	5,943,394
1901	
January	5,955,204
February	5,967,014
March	5,978,824
April	5,990,634
May	6,002,444
June	6,014,254
July	6,026,064
August	6,037,874
September	6,049,684
October	6,061,494
November	6,073,304
December	6,085,114
1902	
January	6,096,924
February	6,108,734
March	6,120,544
April	6,132,354
May	6,144,164
June	6,155,974
July	6,167,784
August	6,179,594
September	6,191,404
October	6,203,214
November	6,215,024
December	6,226,834
1903	
January	6,238,644
February	6,250,454
March	6,262,264
April	6,274,074
May	6,285,884
June	6,297,694
July	6,309,504
August	6,321,314
September	6,333,124
October	6,344,934
November	6,356,744
December	6,368,554
1904	
January	6,380,364
February	6,392,174
March	6,403,984
April	6,415,794
May	6,427,604
June	6,439,414
July	6,451,224
August	6,463,034
September	6,474,844
October	6,486,654
November	6,498,464
December	6,510,274
1905	
January	6,522,084
February	6,533,894
March	6,545,704
April	6,557,514
May	6,569,324
June	6,581,134
July	6,592,944
August	6,604,754
September	6,616,564
October	6,628,374
November	6,640,184
December	6,651,994
1906	
January	6,663,804
February	6,675,614
March	6,687,424
April	6,699,234
May	6,711,044
June	6,722,854
July	6,734,664
August	6,746,474
September	6,758,284
October	6,770,094
November	6,781,904
December	6,793,714
1907	
January	6,805,524
February	6,817,334
March	6,829,144
April	6,840,954
May	6,852,764
June	6,864,574
July	6,876,384
August	6,888,194
September	6,899,004
October	6,910,814
November	6,922,624
December	6,934,434
1908	
January	6,946,244
February	6,958,054
March	6,969,864
April	6,981,674
May	6,993,484
June	7,005,294
July	7,017,104
August	7,028,914
September	7,040,724
October	7,052,534
November	7,064,344
December	7,076,154
1909	
January	7,087,964
February	7,099,774
March	7,111,584
April	7,123,394
May	7,135,204
June	7,147,014
July	7,158,824
August	7,170,634
September	7,182,444
October	7,194,254
November	7,206,064
December	7,217,874
1910	
January	7,229,684
February	7,241,494
March	7,253,304
April	7,265,114
May	7,276,924
June	7,288,734
July	7,300,544
August	7,312,354
September	7,324,164
October	7,335,974
November	7,347,784
December	7,359,594
1911	
January	7,371,404
February	7,383,214
March	7,395,024
April	7,406,834
May	7,418,644
June	7,430,454
July	7,442,264
August	7,454,074
September	7,465,884
October	7,477,694
November	7,489,504
December	7,501,314
19	

CHAPTER 23

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# REVIEW OF THE ECONOMY

## 23.1 Structure of the Canadian economy

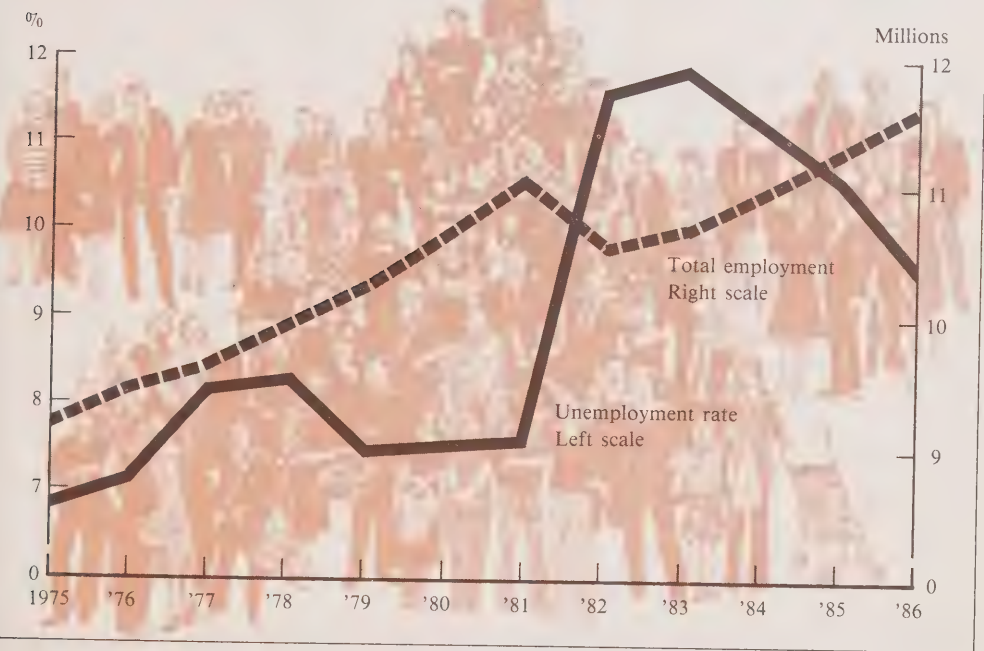
Data on the industrial structures of employment and output in Canada are provided in this chapter. The share of both employment and output in goods-producing industries has edged down since 1970. The share of output originating in primary industries such as agriculture and mining has been stable at about 10% since 1970. Increased output per employee in agriculture has reduced the share of primary industry employment from about 9% to nearly 7%. The share of employment and output in manufacturing has eased from nearly 23% to about 18%.

Employment and output in service-producing industries has grown faster than goods in Canada since 1970, a trend observed in most major Organization for Economic Co-operation and Development (OECD) countries. The largest increases have been in the community, business and personal service industries; notably services to business management in recent years. Rapid growth in financial industries also has accompanied increased innovation and deregulation in this industry.

## 23.2 Regional structure

In terms of the regional structure of the Canadian economy, well over half of employment

Chart 23.1  
Employment and unemployment, 1975-86



and output originates in the central provinces of Ontario and Quebec. Nearly 80% of manufacturing activity is concentrated in these two provinces, including all of the motor vehicle industry which has become Canada's largest manufacturing industry. Financial institutions and other business service industries are also concentrated in Central Canada.

Economic activity in Eastern and Western Canada is more dependent on primary industries than in Central Canada. Fishing, forestry and mining are particularly important to the Atlantic provinces, while agriculture and mineral fuels play large roles in the economy of the Prairie provinces. British Columbia's primary industries are largely dependent on forestry and mining operations.

Regional shifts in economic activity since 1970 were broadly related to the ebb and flow of international demand for primary commodities. Led by higher crude oil prices, many commodity prices rose sharply during the 1970s. The strong gains in employment and output in primary industries in Western Canada was reflected in unemployment rates of 4% to 5% in 1980, compared to 7.5% for Canada as a whole. Gains in primary industries in Eastern Canada were less robust than in the West, as the search for offshore oil and gas did not yield profitable discoveries until late in the 1970s and markets for fish remained relatively weak.

With the sharp slowdown or decline in many commodity prices since 1981, there has been a relative weakening in the regional economies of Eastern and Western Canada into 1986. Weak oil demand and low grain prices have been reflected in a sharp increase of unemployment to nearly 10% in the Prairie provinces, and higher in British Columbia and the Atlantic provinces. The counterpart of this economic weakness has been above-average gains in employment and output in Ontario and Quebec, notably the automobile and housing industries.

### 23.3 The evolution of the macroeconomy

The acceleration of inflation in the 1970s in Canada and throughout most of the OECD region was arrested by the 1981-82 recession. For the OECD region as a whole, the slump in output and increase in unemployment was the most severe in over 30 years. Canada was particularly affected, as export earnings and investment in resource-based industries fell along with weak commodity prices, while domestic demand was restrained by weak employment and income

and record high interest rates. The sharp drop in aggregate demand did contribute to an increase in the current account balance — as demand for imports plummeted — and a pronounced slowdown in inflation to 4%. The federal government deficit increased sharply during the recession, as revenues sagged due to weak incomes while spending was pushed higher by increased transfer payments and by higher interest payments on debt.

### 23.4 Expansion since 1983

Economic growth resumed in the first quarter of 1983, and has continued for 15 consecutive quarters, the longest period of sustained growth since the 1960s. The recovery was initially led by export demand in 1983 and 1984, reflecting buoyant demand in the United States for motor vehicles, housing and investment goods. Consumer demand in Canada also strengthened during this period as economic conditions improved. However, business investment in plant and equipment and government expenditure remained sluggish, which checked the overall growth of domestic demand to below-average rates for an expansion. The weakness of business fixed investment — about 50% of which is in the capital-intensive resource sector — reflected the weak recovery of world demand for primary commodities and persistent excess capacity in many manufacturing industries.

The surge of exports to the United States in 1983-84 began to level off in 1985 and 1986, as growth in the United States slowed to nearly 2% in volume. Real Gross Domestic Product (GDP) growth in Canada remained firm at nearly 4%, however, as final domestic demand accelerated to nearly 5% growth in 1985. Consumer spending rose 5% in the year and housing jumped by 12%. Unemployment edged down to nearly 10%, while price inflation remained moderate at 4%. Business spending on plant and equipment in 1985 posted its first gain since the recession, although this increase was subsequently reversed in 1986 by a sharp cutback in the energy sector when world oil prices fell sharply.

### 23.5 Gross Domestic Product in 1986

In 1986, Gross Domestic Product, at 1981 prices, expanded by 3.1%, compared to an average rate of about 4% in the previous three years of the current expansion. Growth occurred largely in the first half of the year with marginal increases in the second half of the year.

The gain in real GDP reflected growth of about 3% in both final domestic demand and



Chart 23.2  
**Current account balance**

Million dollars

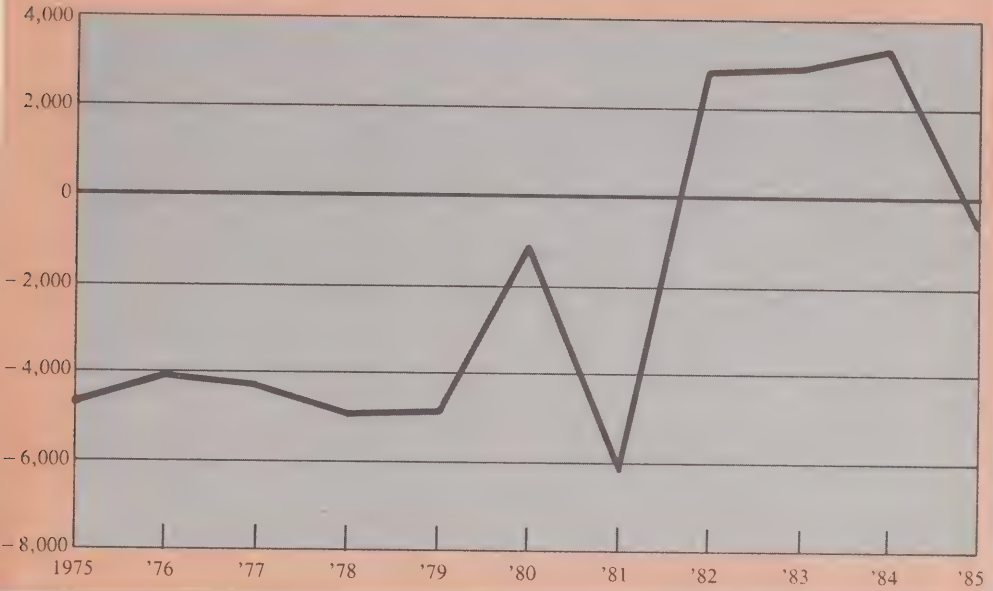
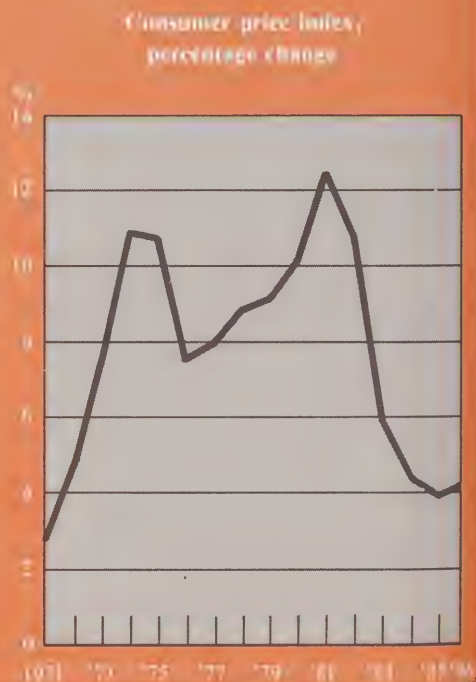
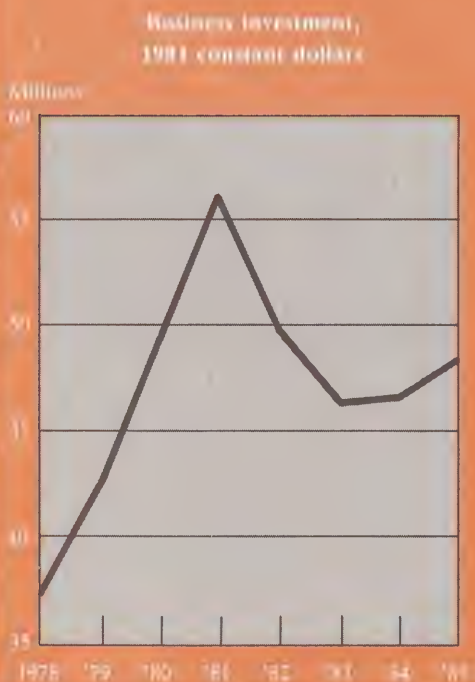


Chart 23.3  
**Percentage change in Gross National Product**



Chart 23-4

Selected economic indicators, Canada 1978-85



in exports. There was considerable divergence in the growth trends by component, however, partly reflecting large declines in energy and other resource prices during the year. While consumer spending and housing demand posted solid gains in 1986, business investment in plant and equipment flattened out. Exports grew less rapidly than imports, while lower prices received for merchandise exports were a major factor in reducing the overall rate of price increase in GDP to 2.8%, the lowest in over 20 years.

In terms of industry output, growth in 1986 was led by services, up 4.3%. Production of goods was up 1.6%, with output sluggish in mining and manufacturing for much of the year.

### 23.5.1 Components of demand

The volume of personal expenditure on goods and services rose by 4.0%, compared with 5.0% in 1985. Spending on services rose 4.6%, in contrast with a 3.5% increase for goods. The strength in services was partly related to the large increase of tourism in Canada associated with Expo '86. The slower growth in expenditure on goods largely originated in automotive products, up 3.1%, following three years of growth of well over 10% per year. The solid growth in housing demand was reflected in higher purchases of furniture and appliances, while semi-durable goods posted a 5.4% gain. Slow growth in energy demand served to restrain the increase in non-durable goods to 1.6%.

Residential construction rose by 13.2% in volume, comparable to the gain in 1985. Most of the increased house-building activity occurred in Ontario and Quebec, and was accompanied by a sharp increase in house prices.

Business investment in plant and equipment, in real terms, fell 0.8% following a 4% gain in 1985. A sharp cutback in non-residential construction was largely offset by a 5.4% increase in machinery and equipment. The drop in non-residential construction was particularly severe in the energy sector, at a time of declining oil prices. Increased investment in the manufacturing and services industries was most evident in Central Canada.

At \$2.2 billion, the volume of non-farm business inventory accumulation was little changed in 1986. An acceleration in stockpiling in the first quarter of the year, notably in the trade sector, was followed by progressively more

restraint during the year. At 1986 year-end, the ratio of non-farm inventories to final sales was little changed from 1985.

Net exports of goods and services, at 1981 prices, declined \$1.5 billion, with all of the drop taking place in merchandise trade. A 6.0% increase in the volume of merchandise imports was widespread across commodities. The largest gains occurred in crude petroleum and some components of imported machinery and equipment. The weakness in export volume, up only 2.6%, was most evident in slack demand for wheat and natural gas.

The rise of 2.8% in the implicit price index for GDP reflected a 2.2% drop in prices received for exports of goods, particularly for energy products and a range of agricultural and mineral products. The implicit price index for final domestic demand rose by about 4% for the third consecutive year.

### 23.5.2 Components of income

Total labour income rose by 5.7% in 1986. Wages and salaries in the services-producing industries rose 6.1%. Weak employment limited wage and salary growth in goods-producing industries to 4.3%. Personal income rose 6.9% for the year. Increased income taxes restrained the growth in disposable incomes to 5.4%; together with the gain in spending, the personal savings rate fell from 13.6% in 1985 to 11.3% in 1986.

Corporate profits before taxes declined by 4.9% in 1986, reversing an increase of similar magnitude in 1985. The decrease largely originated in mineral fuel and petroleum industries, which were affected by lower crude oil prices.

The total government sector deficit, on a national accounts basis, narrowed from \$31.3 billion in 1985 to \$27.3 billion in 1986. Total revenues of all levels of government combined rose 7.0%, largely due to higher rates of personal direct taxes and indirect taxes. The growth in total expenditures slowed noticeably, to 4.2% compared with 7.5% in 1985. There were lower rates of growth in interest payments on the public debt and outlays for goods and services. Subsidy and capital assistance payments declined in the year, mainly reflecting the termination of a number of petroleum-related programs.

### Source

International and Financial Economics Division, Statistics Canada. Compiled by Philip Cross.

## TABLES

..	not available	e	estimate
..	not appropriate or not applicable	p	preliminary
—	nil or zero	r	revised
--	too small to be expressed	certain tables may not add due to rounding	

### 23.1 Income and expenditure aggregates in 1981 dollars

Year	Percentage growth rates							
	Personal expenditure	Government current expenditure	Residential construction	Non-residential construction	Machinery and equipment	Exports	Imports	Gross domestic expenditure
1971	5.9	4.4	16.8	4.2	2.8	5.2	7.2	5.8
1972	7.5	2.7	9.2	-1.3	7.9	7.8	13.8	5.7
1973	7.5	5.8	7.3	6.4	22.2	10.6	14.7	7.7
1974	5.8	5.6	3.4	5.5	11.1	-2.0	11.1	4.4
1975	4.7	6.5	-0.9	14.3	5.5	-6.8	-3.3	2.6
1976	6.5	2.0	18.0	-1.9	4.2	10.6	8.6	6.2
1977	3.2	4.6	1.2	5.7	0.4	8.9	1.7	3.6
1978	3.4	1.7	1.1	1.1	8.1	13.6	7.4	4.6
1979	2.9	0.6	-1.0	13.9	16.2	5.0	11.4	3.9
1980	2.2	2.8	-5.4	10.7	21.3	2.7	4.9	1.5
1981	2.3	2.5	6.6	8.6	18.1	4.4	8.5	3.7
1982	-1.8	1.4	-16.3	-8.9	-13.1	-2.6	-15.0	-3.3
1983	3.0	0.8	15.0	-8.5	-6.4	6.4	7.8	3.1
1984	3.6	3.1	-0.2	-1.8	3.1	17.5	16.4	5.5
1985	5.0	1.9	12.6	3.7	4.4	5.8	7.7	4.0

### 23.2 Canada's Gross Domestic Product at factor cost, by industry<sup>1</sup>, 1970, 1980 and 1984

Industry	1970	1980	1984
Agriculture	3.3	3.3	2.8
Fishing	0.2	0.2	0.2
Forestry	0.8	0.9	0.7
Mining	4.0	6.8	6.6
Manufacturing	23.3	20.6	18.3
Construction	6.3	5.9	4.7
Trade	12.4	11.0	10.2
Finance, insurance and real estate	11.3	11.3	14.3
Transportation, communications and utilities	11.8	11.9	12.7
Community, business and personal services	19.2	20.8	21.4
Public administration	7.3	7.4	8.1

<sup>1</sup> Based on per cent of GDP.

### 23.3 Canada's Gross Domestic Product at market prices<sup>1</sup>, 1970, 1980 and 1984

Province or territory	1970	1980	1984
Newfoundland	1.4	1.3	1.4
Prince Edward Island	0.3	0.3	0.3
Nova Scotia	2.6	2.0	2.4
New Brunswick	1.9	1.6	1.8
Quebec	25.3	22.4	22.3
Ontario	41.8	36.5	38.4
Manitoba	4.2	3.6	3.8
Saskatchewan	3.5	4.2	4.0
Alberta	8.3	13.5	13.7
British Columbia	10.5	11.9	11.4
Yukon and Northwest Territories	0.3	0.3	0.4

<sup>1</sup> Based on per cent of Canada.



**23.4 Credit and exchange market figures<sup>1</sup>**

Year	Prime rate	91-day treasury bill rate	Long-term Canada bond rate	Conventional mortgage rate	Canada-US commercial paper interest rate differential	Canadian dollar in US cents
1971	6.48	3.62	6.95	9.43	-0.66	99.03
1972	6.00	3.55	7.23	9.21	0.27	100.95
1973	7.65	5.39	7.56	9.59	-1.09	99.99
1974	10.75	7.78	8.90	11.24	0.18	102.26
1975	9.42	7.37	9.03	11.43	1.67	98.33
1976	10.04	8.89	9.18	11.78	3.87	101.44
1977	8.50	7.35	8.70	10.36	1.73	94.10
1978	9.69	8.58	9.27	10.59	0.51	97.72
1979	12.90	11.57	10.21	11.97	0.64	85.38
1980	14.25	12.71	12.48	14.32	0.12	85.54
1981	19.29	17.78	15.22	18.15	2.44	83.42
1982	15.81	13.83	14.26	17.89	2.01	81.08
1983	11.17	9.32	11.79	13.29	0.25	81.14
1984	12.06	11.11	12.75	13.61	0.82	77.25
1985	10.58	9.46	11.04	12.18	1.39	73.24

<sup>1</sup> Interest rates and exchange rate are annual averages of monthly levels.**23.5 Income and expenditure aggregates in 1981 dollars, quarterly percentage growth rates**

Year and quarter	Personal expenditure	Government current expenditure	Residential construction	Non-residential construction	Machinery and equipment	Exports	Imports	Gross domestic expenditure
1981	I	0.6	-0.3	5.5	5.2	-1.0	1.3	2.0
	II	0.4	0.3	4.8	0.6	1.6	6.9	1.3
	III	-0.5	2.4	-7.9	-0.3	-3.2	-4.2	-0.9
	IV	-0.2	1.4	-7.3	2.8	2.5	-1.7	-0.7
1982	I	-1.2	-1.8	-2.2	-2.1	-5.1	-3.0	-1.4
	II	-0.3	0.5	-7.9	-6.6	-7.8	-4.5	-1.2
	III	-0.1	0.5	-4.8	-8.9	-3.3	2.7	-0.6
	IV	-0.3	1.3	6.7	1.6	-2.2	-6.0	-0.5
1983	I	1.5	-2.2	6.8	-2.3	-2.7	2.9	1.3
	II	1.3	1.6	12.4	-1.6	-1.5	4.9	2.2
	III	1.3	1.1	0.1	-0.9	4.0	1.7	1.9
	IV	0.9	-0.5	-6.4	2.1	3.1	8.7	0.8
1984	I	0.7	1.4	1.5	-2.7	-0.4	3.6	1.0
	II	0.8	0.6	-0.5	0.7	-2.1	2.9	2.1
	III	0.3	0.6	1.3	-0.3	2.1	4.3	1.0
	IV	1.7	1.5	0.5	-1.1	0.2	0.6	1.3
1985	I	1.2	0.2	1.2	—	0.2	2.8	0.8
	II	1.1	-0.4	5.3	8.6	-0.2	-1.6	0.4
	III	1.8	—	7.9	-1.6	6.2	-1.0	0.8
	IV	1.1	1.6	7.7	-4.1	2.2	5.3	1.8

**23.6 Industry selling price index annual inflation rate<sup>1</sup>**

Year	Food and beverages	Textiles	Wood	Furniture and fixtures	Paper	Primary metals
1971	2.9	-2.1	11.6	2.8	0.2	-3.3
1972	8.7	-0.8	22.2	5.7	0.9	2.2
1973	20.9	10.0	24.3	10.0	11.1	15.0
1974	18.0	20.1	-1.9	20.7	35.3	25.7
1975	10.4	1.1	1.5	9.3	17.7	8.8
1976	1.6	6.5	11.0	6.6	2.4	5.7
1977	7.0	5.5	12.4	5.8	5.9	12.1
1978	10.6	6.2	19.4	6.2	5.5	9.0
1979	12.7	13.2	15.8	13.8	17.3	24.6
1980	10.7	12.8	-6.2	12.0	15.7	19.1
1981	8.9	11.9	0.3	10.5	10.4	1.4
1982	5.4	3.6	-2.8	9.2	3.6	-0.6
1983	3.5	1.7	11.0	4.3	-3.1	3.2
1984	5.5	3.3	-2.0	4.4	11.3	3.3
1985	1.4	1.7	2.0	2.8	1.2	-1.7

**23.6 Industry selling price index annual inflation rate<sup>1</sup> (concluded)**

Year	Metal fabricating	Motor vehicles	Petroleum and coal	Chemical	Non-metallic minerals	Total
1971	...	2.4	10.1	1.0	1.7	1.9
1972	4.7	2.9	2.7	1.4	4.1	4.4
1973	7.8	-0.2	14.1	5.0	4.7	11.2
1974	19.7	7.2	36.0	28.6	14.5	18.9
1975	12.7	7.8	15.3	17.0	18.0	11.3
1976	6.6	4.0	14.4	4.3	10.8	5.1
1977	6.1	8.2	16.3	5.0	8.8	7.9
1978	9.3	8.8	23.7	7.6	8.3	9.2
1979	12.4	12.2	16.7	13.5	9.2	14.5
1980	10.0	11.9	25.9	17.1	11.9	13.5
1981	10.0	12.2	36.4	13.8	15.2	10.2
1982	8.5	4.3	15.0	7.1	12.8	6.0
1983	2.2	3.9	6.4	3.1	4.5	3.5
1984	4.0	3.3	4.4	4.2	1.7	4.5
1985	3.4	4.7	5.0	1.7	3.2	2.8

<sup>1</sup> Annual inflation rates are based on the average of the monthly price levels.**23.7 Consumer price index annual inflation rate<sup>1</sup>**

Year	Food	Housing	Clothing	Transportation	Health and personal care	Recreation	Tobacco and alcohol	All items
1971	1.1	4.6	1.5	4.1	2.0	3.3	1.7	2.8
1972	7.6	4.6	2.6	2.6	4.8	2.8	2.7	4.8
1973	14.6	6.5	4.9	2.7	4.9	4.2	3.1	7.6
1974	16.3	8.7	9.6	9.9	8.6	8.8	5.5	10.9
1975	12.9	10.0	6.0	11.7	11.4	10.4	12.0	10.8
1976	2.7	11.1	5.6	10.8	8.5	6.0	7.1	7.5
1977	8.3	9.4	6.8	7.0	7.4	4.7	7.1	8.0
1978	15.5	7.5	3.9	5.8	7.2	3.9	8.1	8.9
1979	13.2	7.0	9.2	9.7	9.1	6.9	7.2	9.2
1980	10.7	8.1	11.7	12.8	9.9	9.5	11.2	10.2
1981	11.4	12.4	7.1	18.4	10.9	10.1	12.9	12.5
1982	7.2	12.5	5.6	14.1	10.6	8.7	15.5	10.8
1983	3.7	6.8	4.0	5.0	7.0	6.5	12.6	5.8
1984	5.6	3.8	2.5	4.2	3.9	3.4	8.2	4.4
1985	2.9	3.5	2.8	4.8	3.6	4.0	9.5	4.0
1986	5.0	3.0	2.8	3.2	4.2	4.7	11.9	4.1

<sup>1</sup> Annual inflation rates are based on the average of the monthly price levels.**23.8 Raw materials price index annual inflation rate<sup>1</sup>**

Year	Textiles	Wood	Ferrous metals	Non-ferrous metals	Coal and petroleum	Animals	Vegetables	Total
1982	2.8	3.8	3.1	11.5	20.3	5.4	-12.5	7.5
1983	0.9	4.1	1.6	4.3	7.1	-2.3	4.5	4.3
1984	3.0	3.5	9.4	-0.8	1.5	5.9	8.1	3.0
1985	1.2	0.6	1.7	-5.7	4.7	-1.5	7.6	1.1

<sup>1</sup> Annual inflation rates are based on the average of the monthly price levels.

## 23.9 Employment by industry annual percentage growth rates

Year	Agriculture	Other primary industry	Manufacturing	Construction	Transportation and power	Trade	Finance	Services	Total
1971	0.2	2.5	-0.1	4.7	1.2	0.6	5.1	4.3	2.3
1972	-6.0	-3.1	3.2	1.0	3.9	6.1	-0.2	3.4	3.0
1973	-2.9	4.8	5.7	9.2	5.6	6.0	6.5	4.0	5.0
1974	1.0	2.2	2.7	8.6	2.0	5.0	8.5	4.3	4.2
1975	1.8	-4.0	-5.4	3.0	2.7	3.7	3.1	5.5	1.7
1976	-2.2	6.6	2.7	5.2	1.5	0.5	4.7	2.1	2.1
1977	-1.6	3.0	-1.7	-0.2	-0.6	2.1	7.1	4.7	1.8
1978	2.1	7.5	3.6	—	4.9	3.6	2.9	4.4	3.5
1979	2.1	5.9	5.9	1.5	5.1	4.0	1.5	5.0	4.1
1980	-1.1	9.0	1.9	-3.0	0.4	1.6	10.3	4.8	3.0
1981	1.2	7.7	0.5	4.3	0.6	2.6	-2.9	5.5	2.8
1982	-4.7	-16.1	-9.1	-8.3	-3.0	-1.9	1.2	0.5	-3.3
1983	3.1	3.9	-2.3	-5.3	-1.7	0.1	0.3	4.2	0.9
1984	—	3.8	4.4	1.1	-1.4	4.3	4.7	1.8	2.5
1985	2.6	0.3	0.6	2.5	3.1	3.7	-0.3	4.7	2.8
1986	-0.9	-0.7	1.7	6.9	1.6	4.0	4.1	3.7	2.9

## 23.10 Unemployment and related statistics

Year	Labour force <sup>1</sup>	Employment <sup>1</sup>	Unemployment rate <sup>2</sup>	Participation rate <sup>3</sup>
1971	2.9	2.3	6.2	58.1
1972	3.0	3.0	6.2	58.6
1973	4.3	5.0	5.5	59.7
1974	3.9	4.2	5.3	60.5
1975	3.5	1.7	6.9	61.1
1976	2.3	2.1	7.1	61.1
1977	2.9	1.8	8.1	61.6
1978	3.8	3.5	8.3	62.7
1979	3.1	4.1	7.4	63.4
1980	3.0	3.0	7.5	64.1
1981	2.9	2.8	7.5	64.8
1982	0.5	-3.3	11.0	64.1
1983	1.9	0.8	11.9	64.4
1984	1.8	2.5	11.3	64.8
1985	1.9	2.8	10.5	65.2
1986	1.8	2.9	9.6	65.7

<sup>1</sup> Expressed as annual growth rates.<sup>2</sup> Unemployment as a percentage of the labour force.<sup>3</sup> Labour force as a percentage of the total population 15 years of age and over.

## 23.11 Personal expenditure in 1981 dollars

Year	Percentage growth rates			
	Durables	Semi-durables	Non-durables	Services
1971	13.2	5.8	5.3	3.5
1972	17.1	10.0	4.5	5.8
1973	18.3	7.2	4.0	6.1
1974	7.5	7.5	4.8	5.3
1975	7.3	5.1	1.8	5.7
1976	6.2	8.0	4.2	7.8
1977	2.5	3.1	0.7	5.1
1978	4.2	4.6	1.4	4.0
1979	5.0	4.3	0.8	2.9
1980	-0.4	0.4	1.4	4.3
1981	2.8	2.5	0.9	2.9
1982	-9.9	-3.8	-0.5	0.3
1983	10.7	3.0	-0.7	3.3
1984	11.1	3.7	1.2	2.8
1985	12.2	5.6	3.4	3.4

**23.12 Current account balance**

Year	Current dollars (\$'000,000)		Total
	Merchandise trade	Non-merchandise trade	
1971	2,563	-2,132	431
1972	1,857	-2,243	-386
1973	2,735	-2,267	468
1974	1,689	-3,149	-1,460
1975	-451	-4,306	-4,757
1976	1,559	-5,668	-4,109
1977	2,975	-7,309	-4,334
1978	4,315	-9,232	-4,917
1979	4,425	-9,265	-4,840
1980	8,778	-9,892	-1,114
1981 <sup>r</sup>	7,292	-13,422	-6,130
1982 <sup>r</sup>	17,822	-14,916	2,906
1983 <sup>r</sup>	17,647	-14,705	2,943
1984	20,726	-17,363	3,363
1985	17,474	-18,059	-585

**23.13 Merchandise imports by commodity**

Year	Percentage growth rates of current dollar levels				
	Crude materials	Fabricated materials	Machinery	Motor vehicles and parts	Food
1972	16.5	13.7	20.3	20.3	21.1
1973	31.1	18.8	21.2	23.5	41.5
1974	101.7	54.0	29.8	15.8	27.0
1975	24.9	-8.6	20.2	16.8	6.6
1976	0.1	2.8	3.7	14.7	7.1
1977	4.9	12.5	7.0	22.0	15.1
1978	10.8	25.2	21.7	15.4	14.5
1979	34.2	35.2	31.4	13.9	10.8
1980	42.8	7.5	19.0	-10.6	14.5
1981	9.9 <sup>r</sup>	9.6 <sup>r</sup>	14.1	18.2	9.0
1982	-31.3 <sup>r</sup>	-15.9 <sup>r</sup>	-16.7	-6.9	-5.7
1983	-18.6 <sup>r</sup>	-14.4 <sup>r</sup>	-2.9	28.0	1.3
1984	11.7	20.2	28.9	37.2	18.1
1985	0.4	12.1	8.4	23.3	0.1

**23.14 Merchandise exports by commodity**

Year	Percentage growth rates of current dollar levels			
	Crude materials	Fabricated materials	Motor vehicles	Food
1972	9.3	13.2	12.9	12.5
1973	42.3	24.0	14.6	36.0
1974	56.1	30.3	5.2	21.7
1975	0.2	-6.3	12.8	6.5
1976	2.6	18.9	28.1	2.2
1977	8.3	22.2	26.1	9.1
1978	-0.4	28.6	20.1	14.0
1979	42.4	25.9	-4.7	18.8
1980	17.2	20.8	-7.8	31.0
1981	2.8	4.6	23.8	15.2
1982	0.2 <sup>r</sup>	-11.3 <sup>r</sup>	24.7	6.7
1983	-2.9 <sup>r</sup>	8.0 <sup>r</sup>	27.6	2.4
1984	21.7	17.3	38.0	2.8
1985	10.8	3.6	13.3	-9.7



**23.15 Foreign investment in Canada, 1970, 1980 and 1984 (million dollars, Canadian)**

Item	1970	1980	1984
Foreign direct investment in Canada	26,423	61,644	81,776
Manufacturing	10,767	24,797	32,301
Oil and gas	6,574	16,803	20,947
Mining and smelting	3,231	4,644	4,946
Utilities	442	540	710
Merchandising	1,699	4,670	6,388
Financial	2,910	7,823	13,225
Other	800	2,367	3,259
Total, foreign portfolio and other investment in Canada	25,576	112,537	190,946
Total, foreign investment in Canada	51,999	174,181	272,722

**23.16 Canada's investment abroad, 1970, 1980 and 1984 (million dollars, Canadian)**

Item	1970	1980	1984
Canada's direct investment abroad	6,188	25,853	41,725
Manufacturing	3,207	10,877	19,247
Merchandising	278	1,087	1,845
Mining and smelting	378	2,675	3,058
Oil and gas	492	5,525	7,387
Utilities	1,225	1,449	1,557
Financial	421	3,640	7,053
Other	187	600	1,578
Total, Canada's portfolio and other investment abroad	15,805	41,683	78,170
Total, Canada's investment abroad	21,993	67,536	119,895

**23.17 Gross fixed capital formation, by region**

Year	Percentage growth rates of current dollar figures							
	Atlantic	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
1971	14.7	21.4	7.7	-6.8	10.1	9.3	29.8	13.4
1972	-5.2	16.2	10.4	19.5	24.1	11.4	-0.1	10.1
1973	24.7	20.8	17.9	17.8	18.8	23.0	18.6	19.8
1974	21.0	27.0	21.6	20.7	28.9	30.7	19.3	23.5
1975	8.5	24.0	9.3	10.3	41.1	30.7	8.0	16.2
1976	8.4	7.0	8.0	19.2	22.5	39.9	17.5	14.2
1977	-3.8	9.1	5.6	4.7	4.1	11.8	7.6	6.8
1978	13.8	0.9	5.6	6.4	5.4	20.5	10.9	8.1
1979	21.8	9.8	9.8	1.1	29.7	26.4	20.2	15.9
1980	-0.1	8.1	11.8	-0.8	7.1	19.2	27.8	13.4
1981	13.6	7.2	19.0	12.5	21.1	30.2	24.9	20.3
1982	18.0	-4.7	-1.4	-14.1	-2.9	-13.3	-15.0	-3.6
1983	8.4	5.0	1.9	10.5	-13.3	-18.2	-8.1	-3.0
1984	7.7	12.9	9.0	20.0	10.3	-15.9	-10.5	2.1
1985	11.1	12.3	15.5	14.9	4.8	-0.1	1.7	9.0
1986	-9.3	7.7	18.9	9.8	-11.9	-8.0	4.2	5.5

23.18 Retail trade by region

Year	Percentage growth rates of current dollar figures							Total
	Atlantic	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	
1973	11.1	12.6	11.1	13.7	12.4	12.5	16.5	12.4
1974	17.5	17.4	14.2	16.9	24.2	21.7	16.9	16.8
1975	14.6	14.4	15.6	9.9	17.8	21.9	9.3	14.8
1976	11.0	11.0	10.0	9.9	12.5	16.1	12.4	11.2
1977	6.4	7.7	7.9	4.4	1.9	12.0	9.1	7.9
1978	14.1	10.5	10.9	8.6	11.9	14.7	12.9	11.6
1979	12.1	14.1	9.2	9.2	11.4	18.5	11.8	12.0
1980	5.3	6.5	7.8	7.8	7.8	16.9	15.0	9.1
1981	9.3	8.5	13.7	13.1	12.3	15.9	13.5	12.2
1982	6.6	3.6	5.4	7.0	4.3	0.3	-1.9	3.5
1983	12.6	9.7	11.0	7.0	7.8	3.3	4.2	8.8
1984	10.4	12.7	10.4	10.3	—	4.7	6.3	9.4
1985	10.4	9.6	12.8	15.3	8.0	14.3	10.0	11.6

Source

23.1 – 23.18 International and Financial Economics Division, Statistics Canada.

## APPENDICES

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## APPENDIX A

# FEDERAL GOVERNMENT DEPARTMENTS, AGENCIES AND CROWN CORPORATIONS

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The following list and description of the programs and services provided by 180 federal organizations, including departments, agencies, boards and Crown corporations, has been taken from *Index to Federal Programs and Services 1987*, eighth edition, Supply and Services Canada, and is updated to November 15, 1986.

### **Agriculture Canada**

Head office

Sir John Carling Building  
Central Experimental Farm  
930 Carling Avenue  
Ottawa, Ontario K1A 0C5

Regional, district and branch offices: throughout Canada.

Experimental farms and research stations: throughout Canada.

Information: Ottawa/Hull (613) 995-8963.

The department is responsible for federal policies, programs and regulations relating to agriculture and food, as well as for the Prairie Farm Rehabilitation Administration. It is involved in such activities as grading and inspection, seed certification, the regulation of pesticides and fertilizers, scientific research, international agricultural liaison and the dissemination of information. Diagnostic and control programs for animal diseases, market development programs, and market forecasts and reports also come under Agriculture Canada's jurisdiction.

Minister responsible:

Minister of Agriculture

### **Air Canada**

Headquarters

Place Air Canada  
500 Dorchester Boulevard West  
Montreal, Quebec H2Z 1X5

Regional offices: Vancouver, Toronto, Montreal, Halifax.

Ticket offices: throughout Canada.

Information: Montreal (514) 879-7000.

Air Canada is a Crown corporation that assures the aerial transport of passengers, mail and freight, and provides a courier source for messages. Its carriers fly between all provincial capitals, the principal commercial centres of Canada, and between points in the United States, Great Britain, France, the Federal Republic of Germany, Switzerland, Antigua, the Bahamas, Barbados, Bermuda, Cuba, Guadeloupe, Haiti, Jamaica, Martinique and Trinidad.

Minister responsible:

Minister of Transport

### **Atomic Energy Control Board**

Head office

Martel Building  
270 Albert Street  
(PO Box 1046)  
Ottawa, Ontario K1P 5S9

Regional offices: Calgary, Elliot Lake, Mississauga, Montreal.

Information: Ottawa/Hull (613) 995-5894.

The Atomic Energy Control Board administers and enforces the Atomic Energy Control Act and corresponding regulations; it licenses all uses of radioactive materials and activities involving nuclear energy, and monitors the health, safety and security aspects of nuclear energy.

Minister responsible:

Minister of Energy, Mines and Resources

### **Atomic Energy of Canada Limited**

Corporate office  
275 Slater Street  
Ottawa, Ontario K1A 0S4

Regional offices: Pinawa, Mississauga, Chalk River, Ottawa, Montreal, Port Hawkesbury, Bécancour, Glace Bay.

Information: Ottawa/Hull (613) 237-3270.

Atomic Energy of Canada Limited is responsible for the research and development of peaceful uses of nuclear energy, including the development of nuclear power systems and the application of radioisotopes and radiation in medicine and industry.

Minister responsible:

Minister of Energy, Mines and Resources

### **Bank of Canada**

234 Wellington Street  
Ottawa, Ontario K1A 0G9

Bank of Canada agencies: Vancouver, Calgary, Regina, Winnipeg, Toronto, Ottawa, Montreal, Saint John, Halifax.

Information: Ottawa/Hull (613) 782-8111.

The Bank of Canada formulates and implements monetary policy and acts as fiscal agent to the government of Canada. The Bank of Canada Act gives the Bank the sole right to issue notes intended for circulation in Canada.

Minister responsible:

Minister of Finance

### **The Canada Council**

Head office  
99 Metcalfe Street  
(PO Box 1047)  
Ottawa, Ontario K1P 5V8  
Regional office: Moncton.

Information: Ottawa/Hull (613) 598-4365  
(collect calls accepted).

Established by Parliament in 1957, the Canada Council aims to promote and foster the arts in Canada. To achieve this aim, the Council provides a wide range of grants and services to professional artists and arts organizations in dance, music, theatre, media arts, visual arts, and writing and publishing.

The Canada Council reports to Parliament through the Minister of Communications.

### **Canada Deposit Insurance Corporation**

Head office  
320 Queen Street, 22nd Floor  
(PO Box 2340, Station D)  
Ottawa, Ontario K1P 5W5

Regional office: Toronto.

Information: Ottawa/Hull (613) 996-2081;  
Toronto (416) 973-3887.

The Corporation is empowered, under the Canada Deposit Insurance Corporation Act, to insure qualifying Canadian currency deposits held by member institutions, to make loans to member institutions, and under other legislation, to make loans to finance companies, co-operative credit societies and related bodies.

Minister responsible:

Minister of Finance

### **Canada Development Investment Corporation**

Head office  
1166 Alberni Street, Suite 1603  
(PO Box 10)  
Vancouver, British Columbia V6E 3Z2  
Corporate executive office: Toronto.

Information: Vancouver (604) 683-8671; Toronto  
(416) 864-0333.

The Canada Development Investment Corporation was established under the Canada Business Corporations Act in May 1982 as a holding company to manage various federal government investments in the business sector, to privatize these holdings where feasible, to advise the government on issues of industrial assistance when that advice is sought, and to be available to the government as a vehicle to hold and manage possible future investments. It currently manages the federal government's investments in Eldorado Nuclear Limited, Massey-Ferguson Limited, government shares in the Canada Development Corporation, and Teleglobe Canada.

Minister responsible:

Minister of Regional Industrial Expansion

### **Canada Harbour Place Corporation**

Corporate office  
999 West Hastings Street  
Suite 1660  
Vancouver, British Columbia V6C 2W2

The Canada Harbour Place Corporation is a Crown corporation that was established in June 1982 by federal-provincial agreement to design and construct Canada Place in Vancouver. The project includes the British Columbia Convention Centre, open as of July 1, 1987 (converted from space used for the Canada Pavilion at Expo '86);

the Pan Pacific Vancouver Hotel, built for Tokyu Canada Corporation; the World Trade Centre; and a cruise ship facility, built for the Vancouver Ports Corporation (Ports Canada).

### **Canada Labour Relations Board**

Head office

C.D. Howe Building

4th Floor West

240 Sparks Street

Ottawa, Ontario K1A 0X8

Regional offices: Vancouver, Winnipeg, Toronto, Montreal, Dartmouth.

Information: Ottawa/Hull (613) 996-9466.

The Canada Labour Relations Board is an adjudicative, quasi-judicial, administrative tribunal with statutory powers and functions deriving from Part IV and Part V of the Canada Labour Code. The Board's jurisdiction in industrial relations and safety covers federal works, undertakings and businesses, including all forms of interprovincial or international transportation of goods or passengers; broadcasting; communications; longshoring; grain-handling; banking; uranium mining; and certain Crown corporations. The Board's principal activities are the granting or revoking of collective bargaining rights; the mediation or adjudication of complaints of unfair labour practice and allegations of unlawful strike or lockout, including the issue of restraining or cease-and-desist orders; the settlement of complaints regarding exercise of rights under safety legislation; and the disposition of appeals concerning the existence of imminent danger. In Yukon and Northwest Territories, the Board's activities also include those that would normally fall under provincial jurisdiction.

Minister responsible:

Minister of Labour

### **Canada Mortgage and Housing Corporation**

Head office

Montreal Road

Ottawa, Ontario K1A 0P7

Regional offices: Vancouver, Saskatoon, Toronto (Willowdale), Montreal, Saint John.

Local offices: throughout Canada.

Information: Ottawa/Hull (613) 748-2000 or 748-2609.

The Corporation administers the National Housing Act and is authorized to insure mortgage loans made by approved lenders for new and existing

homeowner housing, new and existing rental housing, and dwellings built by co-operative and non-profit associations.

Minister responsible:

Minister of Public Works

### **Canada Museums Construction Corporation Inc.**

55 Murray Street

Ottawa, Ontario K1N 5M3

(Mail: PO Box 395, Station A,

Ottawa, Ontario K1N 8V4)

Information: Ottawa/Hull (613) 230-4555.

The Canada Museums Construction Corporation was created to construct, in the National Capital Region, new buildings for the National Gallery of Canada and the National Museum of Man.

Minister responsible:

Minister of Public Works

### **Canada Oil and Gas Lands Administration**

Headquarters

Tower B, 15th Floor

355 River Road

Ottawa, Ontario K1A 0E4

Regional offices: Yellowknife, Calgary, Halifax.

Information: Ottawa/Hull (613) 993-3760.

Mineral and energy resources/frontier lands: established through the combined Resource Management Branch of Energy, Mines and Resources Canada and elements of the Non-Renewable Resources Branch of Indian and Northern Affairs, the Canada Oil and Gas Lands Administration (COGLA) is the prime federal regulatory agency responsible for activities associated with the exploration and production of energy and mineral resources in the frontier lands. COGLA administers the Oil and Gas Production and Conservation Act and The Canada Oil and Gas Act. The latter is to be replaced by the Canada Petroleum Resources Act, which was brought before Parliament last autumn.

Canada-Newfoundland Offshore Petroleum Board: with the signing of the Atlantic Accord in 1985, this organization assumed administrative responsibility for the oil and gas activities in offshore Newfoundland. COGLA, however, still retains regulation-making authority for all of Canada's frontier lands, comprising some 6.4 million square kilometres in the Arctic and eastern

and western offshore, and 3.8 million square kilometres in Yukon and Northwest Territories. Information: St. John's (709) 778-1400.

Ministers responsible:

Minister of Energy, Mines and Resources  
Minister of Indian Affairs and Northern Development

### **Canada Post Corporation**

Head office

Sir Alexander Campbell Building  
Confederation Heights  
Ottawa, Ontario K1A 0B1

Divisional offices: Vancouver, Edmonton, Winnipeg, London, Toronto, Ottawa, Montreal, Quebec, Halifax.

Information: Ottawa/Hull (613) 952-1524.

Canada Post Corporation collects, sorts and delivers more than 6 billion pieces of mail yearly within Canada, and handles mail to and from more than 165 other countries around the world.

Minister responsible:

Minister responsible for the Canada Post Corporation  
(Minister of Regional Industrial Expansion)

### **Canadian Advisory Council on the Status of Women**

110 O'Connor Street  
9th Floor

(PO Box 1541, Station B)  
Ottawa, Ontario K1P 5R5

Regional offices: Calgary, Montreal.

Local office: Winnipeg.

Information: Ottawa/Hull (613) 992-4975.

The Canadian Advisory Council on the Status of Women was established in 1973 to advise the federal government on issues affecting women and to promote public awareness on those issues. The Council liaises with national women's groups and provincial advisory councils on the status of women on a regular basis.

Minister responsible:

Minister responsible for the Status of Women

### **Canadian Aviation Safety Board**

Head office

Place du Portage, Phase II  
Hull, Quebec

(Mail: PO Box 9120, Alta Vista Terminal,  
Ottawa, Ontario K1G 3T8)

Regional offices: Vancouver, Edmonton, Winnipeg, Toronto (Willowdale), Montreal (Dorval), Moncton.

Information: Ottawa/Hull (819) 994-3741.

Established in 1984, the Canadian Aviation Safety Board is an independent body whose objective is the advancement of aviation safety. The Board investigates aviation occurrences, reports publicly on its findings and makes recommendations designed to eliminate or reduce safety deficiencies. The Canadian Aviation Safety Board reports to Parliament through the Minister of Transport.

### **Canadian Broadcasting Corporation**

Head office

1500 Bronson Avenue  
(PO Box 8478)

Ottawa, Ontario K1G 3J5

Headquarters (English networks): Toronto. Headquarters (French networks): Montreal. Headquarters (International): Montreal.

Regional offices: (English): Vancouver, Edmonton, Regina, Winnipeg, Toronto, Ottawa (including Northern Service), Montreal, Halifax, St. John's.

Regional offices (French): Vancouver, Edmonton, Regina, Winnipeg, Toronto, Montreal, Quebec, Rimouski (for Eastern Quebec), Moncton.

Local offices: throughout Canada.

Information: Ottawa/Hull (613) 724-1200.

The CBC is a publicly owned corporation established by an act of the Canadian Parliament to provide the national broadcasting service in Canada.

The CBC reports to Parliament through the Minister of Communications.

### **Canadian Centre for Occupational Health and Safety**

250 Main Street East

Hamilton, Ontario L8N 1H6

Information: Hamilton (416) 572-2981 or toll-free 1-800-263-8276.

Occupational health and safety/information: the Centre is the national information resource in occupational health and safety. It is federally funded, and governed by a Council of Governors representing government (federal, provincial and territorial), labour and employers. The Centre gathers, analyses, interprets and disseminates



occupational health and safety information through publications, responses to inquiries, creation of computer data bases and access to these data bases and acquired international data bases through a national network of connected organizations. It provides its services free of charge in English and French; the identity of inquirers is kept confidential.

Minister responsible:

Minister of Labour

### **Canadian Commercial Corporation**

50 O'Connor Street, 11th Floor

Ottawa, Ontario K1A 0S6

Information: Ottawa/Hull (613) 996-0034.

Export sales: by serving as prime contractor in government-to-government sales transactions, the Corporation facilitates the export of a wide range of goods and services from Canadian sources. In response to requests by foreign governments and international agencies for individual products or services, the Canadian Commercial Corporation (CCC) identifies Canadian firms capable of meeting the customer's requirements, executes prime as well as back-to-back contracts, and follows through with the contract management, inspection, acceptance and payment aspects of each sale.

Minister responsible:

Minister for International Trade

### **Canadian Commission for UNESCO**

99 Metcalfe Street

(PO Box 1047)

Ottawa, Ontario K1P 5V8

Information: Ottawa/Hull (613) 237-3400.

The Commission provides liaison with governments, organizations, institutions and individuals in Canada that are interested in the activities of the United Nations Educational, Scientific and Cultural Organization. The Commission co-operates with the UNESCO Secretariat in Paris and with national commissions in other member states in implementing UNESCO programs, and advises the Canadian government through the Department of External Affairs on all matters relating to UNESCO. The Commission publishes a *Bulletin* four times a year and a series of *Occasional Papers* on specific topics. These publications are available free of charge.

The Canadian Commission for UNESCO is an agency of the Canada Council, which reports directly to Parliament.

### **Canadian Dairy Commission**

Pebb Building

2197 Riverside Drive

Ottawa, Ontario K1A 0Z2

Information: Ottawa/Hull (613) 998-9490.

The Commission administers a national dairy policy whose objective is to achieve a healthy, viable dairy industry. It aims to provide efficient milk and cream producers with the opportunity of obtaining a fair return for their labour and investment, and to provide consumers with a continuous and adequate supply of high-quality dairy products.

Minister responsible:

Minister of Agriculture

### **Canadian Forestry Service**

Place Vincent Massey

351 Saint-Joseph Boulevard

Hull, Quebec

(Mail: Ottawa, Ontario K1A 0C5)

Regional offices: Victoria, Edmonton, Sault Ste Marie, Chalk River, Quebec (Sainte Foy), Fredericton, St. John's.

Information: Ottawa/Hull (819) 997-1107.

The objective of the Canadian Forestry Service is to promote the wise management, conservation and use of Canada's forest resources for the economic, social and environmental benefit of all Canadians.

Minister responsible:

Minister of State for Forestry

### **Canadian Grain Commission**

Head office

303 Main Street, Suite 600

Winnipeg, Manitoba R3C 3G8

Regional offices: throughout British Columbia, Alberta, Saskatchewan, Ontario and Quebec.

Information: Winnipeg (204) 949-2770.

The Canadian Grain Commission is responsible for the official inspection and grading of grain and the establishing of grade specifications and standards. It issues licences to grain elevator operators and grain dealers, supervises bonding of licensees and insurance coverage on grain in licensed elevators, provides registration and documentation services, compiles and publishes grain-handling statistics, maintains a laboratory for basic and applied research relating to cereal grains and

oilseeds, and supervises weighing of grain at terminal and transfer elevators. The Commission is also responsible for supervision of trading in grain futures.

Minister responsible:  
Minister of Agriculture

### **Canadian Human Rights Commission**

National office  
90 Sparks Street, 4th Floor  
Ottawa, Ontario K1A 1E1

Regional offices: Vancouver, Edmonton, Winnipeg, Toronto, Ottawa, Montreal, Halifax.

Information: Ottawa/Hull (613) 995-1151; Telecommunications Device for the Deaf (TDD) (613) 996-5211. (Collect calls are accepted throughout Canada.)

Human rights: the Commission administers the Canadian Human Rights Act, which requires employers and employees under federal jurisdiction to provide equal access to goods, services, facilities, accommodation or employment without discrimination because of pregnancy or childbirth, or on the grounds of race, colour, national or ethnic origin, religion, age, sex, marital status, family status, pardoned conviction or disability (both physical and mental, and including alcohol or drug dependence). Harassment on any of these grounds is prohibited. The act also requires that men and women be paid equally for work of equal value. The Commission investigates complaints of discrimination lodged against organizations under federal jurisdiction.

The Canadian Human Rights Commission reports to Parliament through the Minister of Justice.

### **Canadian Import Tribunal**

Journal Tower South, 19th Floor  
365 Laurier Avenue West  
Ottawa, Ontario K1A 0G5  
Information: Ottawa/Hull (613) 993-4601.

The Tribunal conducts inquiries to determine whether dumped, subsidized or low-cost imports cause or threaten material injury to Canadian production of like goods.

Minister responsible:  
Minister of Finance

### **Canadian Institute for International Peace and Security**

307 Gilmour Street  
Ottawa, Ontario K2P 0P7  
(Mail: PO Box 3425,  
Station D, Ottawa K1P 6L4)  
Information: Ottawa/Hull (613) 990-1593.

The Canadian Institute for International Peace and Security was established in 1984, primarily as an educational body, to increase knowledge and understanding of issues relating to international peace and security from a Canadian perspective, with particular emphasis on arms control, disarmament, defence and conflict resolution.

Minister responsible:  
Secretary of State for External Affairs

### **Canadian International Development Agency**

Place du Centre  
200 Promenade du Portage  
Hull, Quebec  
(Mail: Ottawa, Ontario K1A 0G4)  
Information: Ottawa/Hull (819) 997-5006 (Public Inquiries Centre); (819) 997-5456 (reception).

CIDA administers most of the Canadian development co-operation program. Its goal is to help the peoples and countries of the Third World achieve self-sustaining social and economic development. CIDA focuses its efforts on the poorest countries and pays special attention to three crucial aspects of development: agriculture (including fisheries and forestry), energy, and human resource development.

Minister responsible:  
Minister of State for External Relations

### **Canadian International Grains Institute**

303 Main Street, Suite 1000  
Winnipeg, Manitoba R3C 3G7  
Information: Winnipeg (204) 949-3291.

The Institute is a non-profit corporation offering instructional programs in grain handling, transportation, marketing and technology, to provide market development support for Canada's grain and oilseed industry. The Institute is affiliated with the Canadian Wheat Board and the Canadian Grain Commission and works closely with External Affairs Canada, Agriculture Canada, the grain business and academic communities. By providing buyers and potential buyers of Canadian grain with a better understanding of Canada's grain

industry and the world grain industry, the Institute contributes to the maintenance and enlargement of markets for Canadian grain and oilseeds and their products. Course participation is by invitation only.

Minister responsible:

Secretary of State for External Affairs

### **Canadian National Railway Company**

Corporate headquarters

935 De la Gauchetière Street West

Montreal, Quebec

(Mail: PO Box 8100, Station A,

Montreal, Quebec H3C 3N4)

Regional offices: Edmonton, Winnipeg, Toronto, Montreal, Moncton.

Other offices: throughout Canada.

Business unit headquarters: Whitehorse (Northwestel), Calgary (CN Exploration), Toronto (CN Communications and CN Tower), Montreal (CANAC Consultants Limited, CN Investment Division, CN Hotels Inc. and CN Real Estate), St. John's (TerraTransport), Gander (Terra Nova Telecommunications), Detroit, USA (Grand Trunk Corporation).

Hotels: Vancouver, Jasper, Toronto, Ottawa, Montreal, Moncton, St. John's.

Information: Montreal (514) 399-5430 (general inquiries); in Nova Scotia, for CN Communications and Telepost, call toll-free 1-800-361-1872.

Canadian National, a Crown corporation, is an integrated transportation and communications company.

Minister responsible:

Minister of Transport

### **Canadian Patents and Development Limited**

275 Slater Street

Ottawa, Ontario K1A 0R3

Information: Ottawa/Hull (613) 990-6100.

Technology arising from government-funded research and development is made commercially available to industry.

Minister responsible:

Minister of Regional Industrial Expansion

### **Canadian Radio-television and Telecommunications Commission**

Les Terrasses de la Chaudière

Central Building

1 Promenade du Portage

Hull, Quebec

(Mail: Ottawa, Ontario K1A 0N2)

Regional offices: Vancouver, Winnipeg, Montreal, Halifax.

Information: Ottawa/Hull (819) 997-0313;

Telecommunications Device for the Deaf (TDD) (819) 994-0423.

The Commission regulates and supervises all aspects of the Canadian broadcasting system (radio, television, cable television, pay television and specialty services). It has authority over federally regulated telecommunications carriers (Bell Canada, the British Columbia Telephone company, CNCP Telecommunications, Telesat Canada, Terra Nova Telecommunications Inc. and NorthwesTel Inc.).

Minister responsible:

Minister of Communications

### **Canadian Saltfish Corporation**

Torbay Road

(PO Box 6088)

St. John's, Newfoundland A1C 5X8

Information: St. John's (709) 772-6071.

The Corporation is the sole buyer and seller of cured codfish in the province of Newfoundland and in part of the province of Quebec. This power is based on federal legislation (the Saltfish Act) and supporting legislation from the provinces of Newfoundland and Quebec.

Minister responsible:

Minister of Fisheries and Oceans

### **Canadian Transport Commission**

Head office

Les Terrasses de la Chaudière

Room 1910

15 Eddy Street

Hull, Quebec

(Mail: Ottawa, Ontario K1A 0N9)

Western division headquarters: Saskatoon.

Regional offices: Vancouver, Calgary, Winnipeg, Toronto, Montreal, Moncton.

Information: Ottawa/Hull (819) 997-0344; Saskatoon (306) 975-5201.

The Commission performs all the functions vested in it by the National Transportation Act, the Railway Act, the Aeronautics Act, the Western

Grain Transportation Act, the Transport Act and other statutes. It regulates transportation in Canada that is under federal jurisdiction, including transport by rail, air, water and commodity pipeline, as well as certain types of interprovincial commercial motor transport.

Minister responsible:

Minister of Transport

### **Canadian Wheat Board**

423 Main Street

(PO Box 816)

Winnipeg, Manitoba R3C 2P5

Regional offices: Vancouver, Montreal.

Information: Winnipeg (204) 949-3421.

The Canadian Wheat Board has sole jurisdiction over export sales of wheat, oats and barley produced in Western Canada, and over the domestic sale of these grains for human consumption. It also controls the delivery of these and other major grains, and co-ordinates their movement to terminal elevators.

Minister responsible:

Minister of State for the Canadian Wheat Board

### **Department of Communications**

Head office

Journal Tower North

300 Slater Street

Ottawa, Ontario K1A 0C8

Regional offices: Vancouver, Winnipeg, Toronto, Montreal, Moncton.

District offices: throughout Canada.

Information: Ottawa/Hull (613) 990-4900.

The department is responsible for undertakings, facilities, systems and services that relate to communications and telecommunications.

Minister responsible:

Minister of Communications

### **Competition Tribunal**

Royal Bank Building, Room 727

90 Sparks Street

Ottawa, Ontario

(Mail: PO Box 1899, Station B,

Ottawa, Ontario K1P 5R5)

Information: Ottawa/Hull (613) 957-3172.

Court of record: as constituted by the Competition Tribunal Act, the Tribunal is a court of record consisting of four justices appointed from the

Federal Court — Trial Division and eight lay members. It hears and determines questions of fact, mixed fact and law, and law (lay members may not participate in hearings involving only questions of law). Its mandate covers the issuance of interim or final orders prohibiting the practices of refusal to deal, consignment selling, exclusive dealing, tied selling, market restrictions, delivered pricing and anti-competitive mergers. The Tribunal also has jurisdiction to issue interim or final orders in relation to matters enumerated in Part VII of the Competition Act, and to order registration and exemption of specialization agreements.

The Tribunal has a Registry in Ottawa which is responsible for the conduct of its work. It may, however, sit anywhere in Canada. Every hearing is attended by at least three (but not more than five) members, including one judge and one lay member.

Minister responsible:

Minister of Consumer and Corporate Affairs

### **Consumer and Corporate Affairs Canada**

Head office

Place du Portage

50 Victoria Street

Hull, Quebec

(Mail: Ottawa, Ontario K1A 0C9)

Regional offices: Vancouver, Winnipeg, Toronto (Willowdale), Montreal, Dartmouth.

District and area offices: throughout Canada.

Information: Ottawa/Hull (819) 997-2938; Telecommunications Device for the Deaf (TDD), 944-0067.

The department is concerned with the conduct of the marketplace and aims to increase its efficiency. It strives, through legislation and regulation, to balance the interests of consumers and business, and to maintain confidence in the integrity and viability of private enterprise. The department also supports the consumer movement.

Minister responsible:

Minister of Consumer and Corporate Affairs

### **Correctional Investigator (Office of the)**

PO Box 2324, Station D

Ottawa, Ontario K1P 5W5

Information: Ottawa, Hull (613) 990-2692.

The Office of the Correctional Investigator investigates complaints from inmates, as defined in the Penitentiary Act. It also reports on problems of inmates, raised through complaints, that



come within the responsibility of the Solicitor General of Canada, except for problems where the person complaining has not, in the opinion of the Correctional Investigator, exhausted all available legal or administrative remedies; problems concerning any subject matter that ceased to exist or to be the subject of complaint more than one year before the lodging of the complaint with the Commissioner (Correctional Investigator); and problems concerning any subject matter or conditions under the responsibility of the Solicitor General of Canada that touch on the preparation of material for consideration of the National Parole Board. Further, the Commissioner need not investigate if the subject matter of a complaint has previously been investigated or if, in the opinion of the Commissioner, a person complaining has no valid interest in the matter.

Minister responsible:

Solicitor General of Canada

### **Correctional Service of Canada**

Head office

Sir Wilfrid Laurier Building

340 Laurier Avenue West

Ottawa, Ontario K1A 0P9

Regional offices: Abbotsford, Saskatoon, Kingston, Laval, Moncton.

District offices: throughout Canada.

Information: Ottawa/Hull (613) 993-7501.

The Correctional Service is responsible for all federal penal institutions (penitentiaries and so forth). It administers sentences of two years or more imposed by courts, and prepares offenders for their return to society.

Minister responsible:

Solicitor General of Canada

### **Defence Construction Canada**

Head office

Billings Bridge Plaza

SBI Building

2323 Riverside Drive

Ottawa, Ontario K1A 0K3

Regional offices: Victoria, Winnipeg, Toronto, Montreal (Longueuil), Halifax.

Site offices: on various Canadian Forces bases across the country.

Information: Ottawa/Hull (613) 998-9548.

Defence Construction Canada (Defence Construction [1951] Limited) is responsible for contracting for the major military construction, repair and

maintenance requirements of the Department of National Defence. It often maintains site offices on project sites for the duration of a project.

Minister responsible:

Minister of National Defence

### **Economic Council of Canada**

Tower A, 16th Floor

333 River Road

(PO Box 527, Station B)

Ottawa, Ontario K1P 5V6

Information: Ottawa/Hull (613) 993-1253.

The Council is an independent, advisory body that prepares and publishes an annual review of the country's economic problems and medium-term prospects. It also conducts economic studies on its own initiative or at the request of the government. The results of its research are available to the public in the form of published reports and authored research studies.

Minister responsible:

Prime Minister

### **Elections Canada**

440 Coventry Road

Ottawa, Ontario K1A 0M6

Information: Ottawa/Hull (613) 993-2975 or toll-free 1-800-267-2380.

The Chief Electoral Officer of Canada is responsible for the supervision of the administrative conduct of federal elections in Canada and for ensuring that all provisions of the Canada Elections Act are complied with and enforced. Major activities include the training of returning officers, the revision of polling division boundaries, the acquisition of election material and supplies, the maintenance of a registry of political parties and the certification of statutory payments to be made to auditors, political parties and candidates under the election expenses provisions of the act. Pursuant to the Electoral Boundaries Readjustment Act and following each decennial Census, the Chief Electoral Officer must calculate the number of electoral districts to be assigned to each province according to rules contained in Section 51 of the Constitution Act, and prepare population distribution maps for use by electoral boundaries commissions that are directly responsible for readjusting federal electoral district boundaries. The Chief Electoral Officer reports directly to Parliament.

### **Emergency Preparedness Canada**

Head office  
Gillin Building, 2nd Floor  
141 Laurier Avenue West  
Ottawa, Ontario K1A 0W6  
Regional offices: provincial capitals.  
Information: Ottawa/Hull (613) 992-3322.

Emergency Preparedness Canada is responsible for the co-ordination of planning for the federal response to peacetime emergencies and for the continuance of government in the event of a nuclear attack. Special arrangements would ensure the operation of a relocated federal emergency government at various sites across Canada.

Minister responsible:  
Minister responsible for Emergency Preparedness  
(Minister of National Defence)

### **Employment and Immigration Canada**

Head office  
Place du Portage, Phase IV  
13th Floor  
Hull, Quebec  
(Mail: Ottawa, Ontario K1A 0J9)  
Regional offices: Vancouver, Edmonton, Regina, Winnipeg, Toronto (Willowdale), Montreal, Fredericton, Halifax, Charlottetown, St. John's.  
Canada employment centres: throughout Canada.  
Canada immigration centres: 107 throughout Canada.  
Canada farm labour pools: throughout Canada.  
Information: Ottawa/Hull (819) 994-6313.

The department is responsible for the development and utilization of human resources. Its jurisdiction also includes the provision of employment and immigration services and the administration of income maintenance benefits.

Ministers responsible:  
Minister of Employment and Immigration  
Minister of State for Immigration  
Minister of State for Youth

### **Energy, Mines and Resources Canada**

Head office  
580 Booth Street  
Ottawa, Ontario K1A 0E4  
Regional information offices: Vancouver, Calgary, Saskatoon, Winnipeg, Toronto, Montreal, Moncton (Dieppe), Halifax, St. John's.  
Conservation and Renewable Energy Offices

(CREOs): Whitehorse, Yellowknife, Vancouver, Edmonton (St. Albert), Saskatoon, Winnipeg, Toronto, Montreal, Halifax, Summerside, Moncton (Dieppe), St. John's.

Surveys and Mapping Branch, regional offices: Whitehorse, Yellowknife, Vancouver, Edmonton, Regina, Winnipeg, Toronto, Sherbrooke, Quebec, Amherst.

Information: Ottawa/Hull (613) 995-3065; Maps: Ottawa/Hull (613) 995-4510.

The department's objective is to encourage the discovery, development and intelligent use of the country's mineral and energy resources and to broaden the knowledge of Canada's landmass. The department formulates national policies based on social and economic analysis and on research and data collection in the earth, mineral and metal sciences.

Minister responsible:  
Minister of Energy, Mines and Resources.

### **Environment Canada**

Head office  
Les Terrasses de la Chaudière  
27th Floor  
10 Wellington Street  
Hull, Quebec  
(Mail: Ottawa, Ontario K1A 0H3)  
Regional offices: across Canada.  
Other offices (including weather offices and national parks): throughout Canada.  
Information: Ottawa/Hull (819) 997-2800.

Responsibilities of the department include the management and protection of migratory birds; the provision of information on weather, climate, ice and sea conditions, and air quality; the protection and enhancement of the quality of the natural environment, including water, soil and air; and the conservation of renewable water, land and wildlife resources.

Minister responsible:  
Minister of the Environment

### **Export Development Corporation**

Head office  
151 O'Connor Street  
(PO Box 655)  
Ottawa, Ontario K1P 5T9  
Regional offices: Vancouver, Calgary, Toronto, Montreal, Halifax.  
District offices: Winnipeg, Ottawa, London.

Information: Ottawa/Hull (613) 598-2500.

EDC is a Crown corporation that provides a wide range of insurance and bank guarantee services to Canadian exporters and arranges credit for foreign buyers in order to facilitate and develop export trade.

Minister responsible:

Minister for International Trade

### **External Affairs Canada**

Head office

Lester B. Pearson Building

125 Sussex Drive

Ottawa, Ontario K1A 0G2

Passport offices: throughout Canada.

Information: Ottawa/Hull, foreign policy and publications (613) 996-9134; general information (evenings, weekends and holidays) (613) 996-9134; Visual Ear (613) 996-9136; for passport information, nearest regional passport office.

The main functions of the department are: execution of the federal government's foreign policy through supervision of relations between Canada and other countries; representation of Canada in foreign countries and at international conferences; the development and promotion of Canada's international trade; and assistance to Canadians travelling abroad. It also manages Canada's immigration program abroad and co-ordinates external aspects of immigration policies and programs. Inquiries regarding individual immigration cases are answered by Employment and Immigration Canada, Ottawa, Ontario K1A 0J9.

Minister responsible:

Secretary of State for External Affairs

### **Farm Credit Corporation Canada**

Head office

434 Queen Street

(PO Box 2314, Postal Station D)

Ottawa, Ontario K1P 6J9

Regional offices: Kelowna, Edmonton, Regina, Winnipeg, Guelph, Quebec (Sainte-Foy), Moncton.

Field offices: throughout Canada.

Information: Ottawa/Hull (613) 996-6606.

The Farm Credit Corporation Canada was established to help farmers and persons wishing to become farmers to purchase, develop and maintain sound farm businesses. An advisory committee composed of farmers and other qualified persons

appointed by the Minister advises the Corporation with respect to policy and other matters.

Minister responsible:

Minister of Agriculture

### **Federal Business Development Bank**

Head office

800 Place Victoria

(PO Box 335)

Montreal, Quebec H4Z 1L4

Regional offices: Vancouver, Winnipeg, Toronto, Montreal, Halifax.

Branch offices: throughout Canada.

CASE offices: throughout Canada.

Information: Montreal (514) 283-5904.

The Federal Business Development Bank is a Crown corporation that assists in the establishment and development of business enterprises in Canada by providing them with financial and management services.

Minister responsible:

Minister of Regional Industrial Expansion

### **Federal Judicial Affairs (Office of the Commissioner for)**

110 O'Connor Street, 11th Floor

Ottawa, Ontario K1A 1E3

Information: Ottawa/Hull (613) 992-9175.

The main responsibility of the Office of the Commissioner for Federal Judicial Affairs is to administer Part I of the Judges Act. The Office is also involved in the administration of the Canadian Judicial Council, the Federal Court of Canada and the Tax Court of Canada.

Minister responsible:

Minister of Justice

### **Federal-Provincial Relations Office**

Head office

59 Sparks Street

Postal Station "B" Building

Ottawa, Ontario K1A 0A3

Information: Ottawa/Hull (613) 957-5300.

The Federal-Provincial Relations Office has a supportive, advisory role in federal-provincial relations at the federal level.

Ministers responsible:

Prime Minister

Minister of State for Federal-Provincial Relations

### **Department of Finance Canada**

L'Esplanade Laurier, East Tower  
140 O'Connor Street  
Ottawa, Ontario K1A 0G5

Information: Ottawa/Hull (613) 992-1573; 996-6477 or 992-6885 (Tariffs Division); concerning the federal budget, toll-free 1-800-267-0470.

The Department of Finance is an advisory body operating under Parts VIII to X of the Financial Administration Act.

Minister responsible:  
Minister of Finance

### **Fisheries and Oceans**

Head office  
Centennial Towers  
200 Kent Street  
Ottawa, Ontario K1A 0E6

Regional head offices: Vancouver, Winnipeg, Quebec, Moncton, Halifax, St. John's.

District offices: throughout Canada.

Information: Ottawa/Hull (613) 993-0600.

Fisheries and Oceans has authority in such areas as sea coast and inland fisheries, small craft harbours, hydrography and marine sciences.

Minister responsible:  
Minister of Fisheries and Oceans

### **Fitness and Amateur Sport Canada**

Head office  
Journal Tower South  
365 Laurier Avenue West  
Ottawa, Ontario K1A 0X6

Regional offices: Winnipeg, Montreal, Halifax.

Information: Ottawa/Hull (613) 996-4510.

Fitness and Amateur Sport Canada aims to improve the fitness of Canadians and their participation and excellence in amateur sport.

Minister responsible:  
Minister of State for Fitness and Amateur Sport.

### **Foreign Claims Commission**

Lester B. Pearson Building  
Tower C, 7th Floor  
125 Sussex Drive  
Ottawa, Ontario K1A 0G2  
(Mail: PO Box 432, Ottawa, Ontario K1N 8V5)  
Information: Ottawa/Hull (613) 995-7707 or 992-0976.

The Foreign Claims Commission deals with claims against foreign countries with which Canada has agreements or is in the process of negotiating agreements, for compensation to Canadians whose property has been nationalized or otherwise taken without compensation. When such an agreement has been concluded, the Commission makes recommendations to the Secretary of State for External Affairs and the Minister of Finance on the eligibility of individual claimants for compensation and on amounts of compensation to be awarded.

Ministers to whom the Commission reports:  
Secretary of State for External Affairs  
Minister of Finance

### **Freshwater Fish Marketing Corporation**

1199 Plessis Road  
Winnipeg, Manitoba R2C 3L4  
Information: Winnipeg (204) 949-6600.

The Corporation markets and processes freshwater fish landed by commercial fishermen in Manitoba, Saskatchewan, Alberta, the Northwest Territories and parts of northwestern Ontario, so as to increase returns to the fishermen. It receives and exercises grants, rights, franchises, privileges and concessions from governments (foreign and provincial) and individuals.

Minister responsible:  
Minister of Fisheries and Oceans

### **Health and Welfare Canada**

Head office  
Brooke Claxton Building  
De la Colombine Boulevard  
Tunney's Pasture  
Ottawa, Ontario K1A 0K9  
Regional offices: throughout Canada.  
District offices: throughout Canada.  
Information: Ottawa/Hull (613) 957-2991.

The department is responsible for matters relating to the promotion and preservation of the health, social security and social welfare of Canadians. Its activities include investigation and research into public health and welfare; medical assessment and care of immigrants and seamen; supervision of the public health facilities of rail, water and other types of transportation; and supervision of such income programs as the Canada Pension Plan, Family Allowances and Old Age Security.

Minister responsible:  
Minister of National Health and Welfare



## **Immigration Appeal Board**

Head office

116 Lisgar Street

Ottawa, Ontario K1A 0K1

Regional offices: Vancouver, Winnipeg, Toronto, Montreal.

Information: Ottawa/Hull (613) 995-6486.

Appeals: to persons who have been ordered removed from Canada or to persons in Canada whose relatives have been refused admission to Canada, the Board makes available an independent court to which they may appeal such decisions, not only on legal grounds, but also on discretionary grounds. The Board also permits the redetermination of refugee claims.

Minister responsible:

Minister of Employment and Immigration

## **Indian and Northern Affairs Canada**

Head office

Les Terrasses de la Chaudière

North Tower

10 Wellington Street

Hull, Quebec

(Mail: Ottawa, Ontario K1A 0H4)

Regional offices: Whitehorse, Yellowknife, Vancouver, Edmonton, Regina, Winnipeg, Toronto, Quebec (Saint-Roch), Amherst.

Other offices: throughout Canada.

Information: Ottawa/Hull, general inquiries (819) 997-0380; Indian Services (819) 997-0185; Finance and Professional Services (819) 997-8400; Lands, Revenues and Trusts (819) 997-8400; Self-government (819) 997-8405; Economic Development (819) 997-0185; Northern Affairs (819) 997-8411.

The department is responsible for Canada's Indian and Inuit people and for natural resource management in Yukon and Northwest Territories.

Minister responsible:

Minister of Indian Affairs and Northern Development

## **Information Commissioner of Canada**

Place de Ville

Tower B, 14th Floor

112 Kent Street

Ottawa, Ontario K1A 1H3

Information: Ottawa/Hull (613) 995-2410 or toll-free 1-800-267-0441.

Access to information/complaints: the Information Commissioner is appointed by Parliament to

deal with complaints from individuals who allege that the government has failed to comply with rights contained in the Access to Information Act. The Information Commissioner may appear on behalf of complainants, with their consent or as a party, in applications before the Federal Court for review of decisions of government institutions to refuse access under the act. In addition to annual reports, the Information Commissioner may make special reports to Parliament at any time.

The Information Commissioner of Canada reports directly to Parliament.

## **Department of Insurance Canada**

Head office

Jackson Building, 7th Floor

122 Bank Street

Ottawa, Ontario K1A 0H2

Regional offices: Vancouver, Winnipeg, Toronto, Montreal.

Information: Ottawa/Hull (613) 996-8587.

The Department of Insurance is the federal organization responsible for the supervision of all federally registered or licensed financial institutions other than chartered banks. The department also has responsibility for the supervision of employer-sponsored pension plans for employees under federal jurisdiction. In addition, the department provides actuarial services and advice to the federal government and federal departments.

Minister responsible:

Minister of State for Finance

(under the authority of the Minister of Finance)

## **International Centre for Ocean Development**

5670 Spring Garden Road, 9th Floor

Halifax, Nova Scotia B3J 1H6

Other office: Ottawa.

Information: Halifax (902) 426-1512; Ottawa (613) 954-1920.

Management of ocean resources: this Crown corporation was established in 1985 in the wake of the 1982 United Nations conference on the Law of the Sea, which introduced a global plan for the sharing of the world's ocean resources. ICOD's mission is to co-operate with and support developing countries in the management of their ocean resources. Its objectives are to support improved and innovative approaches to the use of ocean resources by developing countries; to foster the development of Canadian expertise in ocean-use management and to make this available

to developing countries; to provide training programs, technical assistance and advisory services; to develop and distribute information; and, to a limited extent, to sponsor research consistent with ICOD's mandate. Many Canadian training and research centres already have strong links with foreign institutions and international development projects. ICOD's initiatives are meant to complement their work and the work of other national and international organizations involved in ocean development, and not to be a competitive venture.

Minister responsible:

Secretary of State for External Affairs

### **International Development Research Centre**

50 Queen Street  
(PO Box 8500)

Ottawa, Ontario K1G 3H9

Regional office: Vancouver.

Other offices: Bogota, Cairo, Dakar, Nairobi, New Delhi, Singapore.

Information: Ottawa/Hull (613) 598-0569.

The objectives of the Centre are to stimulate and financially support research for the benefit of developing countries.

Minister responsible:

Secretary of State for External Affairs

### **International Joint Commission**

Canadian Section

Berger Building, 18th Floor  
100 Metcalfe Street

Ottawa, Ontario K1P 5M1

Regional office: Windsor.

Information: Ottawa/Hull (613) 995-2984.

The International Joint Commission, consisting of three Canadian and three United States commissioners, was established under the 1909 Boundary Waters Treaty to assist in the solution and prevention of disputes on questions arising along the common frontier of Canada and the United States. Among the Commission's duties is the quasi-judicial responsibility for adjudicating applications for construction and operation of works that would affect water levels and flows on boundary and transboundary waters. The Commission also investigates problems referred to it by the two governments, including water quality issues, particularly those relating to the 1978 Great Lakes Water Quality Agreement. The IJC also has a mandate to alert both governments of air quality problems in boundary areas.

Under the 1978 Great Lakes Water Quality Agreement, the Commission has certain monitoring responsibilities relating to municipal waste treatment works. It also monitors municipal treatment works in the Red, Rainy and St. Croix rivers.

Minister responsible:

Secretary of State for External Affairs

### **Investment Canada**

C.D. Howe Building

5th Floor West

235 Queen Street

PO Box 2800, Station D

Ottawa, Ontario K1P 6A5

Information: Ottawa/Hull (613) 996-7868; concerning investment services, toll-free 1-800-267-0490.

The agency encourages and facilitates investment in Canada by Canadians and non-Canadians by offering information and other investment services, in collaboration with other departments and agencies of the federal and provincial governments and with the private sector in Canada and abroad. The agency also provides advice and assistance to the Minister responsible for Investment Canada concerning investment proposals that are subject to review under the Investment Canada Act.

Minister responsible:

Minister of Regional Industrial Expansion

### **Department of Justice Canada**

Head office

Justice Building

239 Wellington Street

Ottawa, Ontario K1A 0H8

Regional offices: Whitehorse, Yellowknife, Vancouver, Edmonton, Saskatoon, Winnipeg, Toronto, Montreal, Halifax.

Information: Ottawa/Hull (613) 995-2569.

The department supervises all legal matters under federal responsibility. It also acts as legal advisor to the Governor General and advises upon legislative acts.

Minister responsible:

Minister of Justice and Attorney General of Canada

### **Labour Canada**

Headquarters

Place du Portage

165 Hotel de Ville Street

Hull, Quebec

(Mail: Ottawa, Ontario K1A 0J2)

Regional offices: Vancouver, Winnipeg, Toronto (Willowdale), Montreal, Moncton.

District offices: throughout Canada.

Federal Mediation and Conciliation Service field offices: Vancouver, Winnipeg, Toronto, Montreal, Halifax, St. John's.

Information: Ottawa/Hull (819) 997-2617.

The department's aims are to promote stable industrial relations by maintaining a balanced legislative framework for industrial relations in the federal jurisdiction: by providing assistance to parties in overcoming industrial relations problems; by establishing appropriate standards of wages, conditions of employment, and occupational safety and health; by providing non-legislative programs designed to achieve understanding and co-operation in the industrial relations sphere; and by maintaining and strengthening the Canadian contribution to the improvement of labour conditions throughout the world.

Minister responsible:

Minister of Labour

### **Law Reform Commission of Canada**

Head office

Varete Building, 7th Floor

130 Albert Street

Ottawa, Ontario K1A 0L6

Regional office: Montreal.

Information: Ottawa/Hull (613) 996-7844.

The Commission carries out research in the areas of criminal law, criminal procedure, administrative law, protection of life and legislative drafting. Parliamentary reports, working papers and study papers are available free of charge to the public on written request.

Minister responsible:

Minister of Justice

### **Library of Parliament**

Parliament Buildings

Wellington Street

Ottawa, Ontario K1A 0A9

Information: Ottawa/Hull (613) 995-1166.

The Library makes available to parliamentarians a large collection of resources as well as expert professional staff to support their information and research needs.

Ministers responsible:

Speaker of the Senate

Speaker of the House of Commons

### **Livestock Feed Board of Canada**

Head office

5180 Queen Mary Road, Room 400

(Mail: PO Box 177, Snowdown Station, Montreal, Quebec H3X 3T4)

Regional office: Surrey.

Information: Montreal (514) 283-7505.

The Board's objectives are to ensure the availability of feed grain to meet the needs of livestock feeders, the availability of adequate storage space in Eastern Canada, and stability and fair equalization in the price of feed grains within Eastern Canada, British Columbia, and Yukon and Northwest Territories.

Minister responsible:

Minister of State responsible for the Livestock Feed Board of Canada

### **Marine Atlantic**

100 Cameron Street

Moncton, New Brunswick E1C 5Y6

Regional offices: Halifax, Charlottetown, St. John's.

Information: Moncton (506) 858-3600.

Ferry transportation: Marine Atlantic is an independent Crown corporation operating passenger, auto and freight ferry services throughout Atlantic Canada and to the state of Maine. The company provides year-round transportation between Bar Harbor (Maine) and Yarmouth (NS); Digby (NS) and Saint John (NB); Cape Tormentine (NB) and Borden (PEI); and North Sydney (NS) and Port-aux-Basques (Nfld). A summer-only service runs between North Sydney and Argentia (Nfld). In addition, Marine Atlantic operates a fleet of smaller passenger and freight vessels, which sail seasonally along the coast of Newfoundland and into Labrador. Marine Atlantic ferries carry more than 2 million passengers and one million vehicles annually, and are subsidized by Transport Canada.

Minister responsible:

Minister of Transport

### **Medical Research Council of Canada**

Jeanne Mance Building, 20th Floor

Tunney's Pasture

Ottawa, Ontario K1A 0W9

Information: Ottawa/Hull (613) 954-1812.

Grants and scholarships/health sciences: the Council provides grants to help defray the cost of basic, applied, experimental or clinical research,

and provides salary support to a limited number of investigators and research trainees in Canadian universities. It sponsors a number of programs to develop research in highly productive fields where major contributions may be expected, and in areas where research is not adequately developed. The Council makes available limited support for approved symposia and workshops, and for the exchange of scientists in universities and industry.

Minister responsible:

Minister of National Health and Welfare

### **Ministry of State for Science and Technology**

C.D. Howe Building

240 Sparks Street

Ottawa, Ontario K1A 1A1

Information: Ottawa/Hull (613) 990-6121.

Publications: Ottawa/Hull (613) 990-6142.

The Ministry is responsible for formulating policies and providing advice to the government on science and technology.

Minister responsible:

Minister of State for Science and Technology

### **National Advisory Council on Aging**

Jeanne Mance Building

Tunney's Pasture

Ottawa, Ontario K1A 0K9

Information: Ottawa/Hull (613) 990-7627.

The 18-member National Advisory Council on Aging is a citizens' advisory body which counsels the Minister of National Health and Welfare on programs relating to the quality of life of Canada's aging population. In addition, the Council reviews the needs and problems of older people and recommends remedial action; it consults with institutions and groups involved in aging or representing the aged, publishes reports, helps in information dissemination, and stimulates public discussion on aging.

Minister responsible:

Minister of National Health and Welfare

### **National Arts Centre**

1 Confederation Square

(PO Box 1534, Station B)

Ottawa, Ontario K1P 5W1

Information: Ottawa/Hull (613) 996-5051.

The National Arts Centre Corporation is responsible for the operation of the National Arts Centre in Ottawa and the development of the performing arts in the National Capital Region. It contributes to artistic life in the Regional Municipality of Ottawa-Carleton, from which it receives a grant each year. The NAC also assists the Canada Council in developing the performing arts throughout Canada.

Minister responsible:

Minister of Communications

### **The National Battlefields Commission**

360 De Bernières Avenue

Quebec, Quebec G1R 2L7

Information: Quebec (418) 648-3506.

The National Battlefields Commission was established for the purpose of acquiring, restoring and maintaining the historic battlefields in Quebec City, and to form a National Battlefields Park.

Minister responsible:

Minister of the Environment

### **National Capital Commission**

Head office

161 Laurier Avenue West

Ottawa, Ontario K1P 6J6

Visitor centres: Ottawa, Hull, Old-Chelsea (Gatineau Park), Sainte-Cécile-de-Masham (seasonal office). The NCC also manages an Infotent on Parliament Hill from June to August inclusive, and satellite centres at the Ottawa bus and train terminals in July and August.

Information: 14 Metcalfe Street, (613) 992-5473 or toll free 1-800-267-0450; recorded messages (613) 232-1234.

The NCC's purpose is to enhance the role of the National Capital in the lives of all Canadians by making it a national meeting place and a focus for the nation's diverse cultural life.

Minister responsible:

Minister of Public Works

### **National Council of Welfare**

Brooke Claxton Building, Room 566

Tunney's Pasture.

Ottawa, Ontario K1A 0K9

Information: Ottawa/Hull (613) 957-2961.

The Council is a citizens' advisory body to the Minister of National Health and Welfare. It publishes



and makes available, free of charge, reports on poverty and social policy including the topics of the aged, community organizing, employment policy, income security, legal services, low-income consumers, medicare, nutrition, pension reform, poverty lines and statistics, social services, taxation, and women and children in poverty.

Minister responsible:

Minister of National Health and Welfare

## **Department of National Defence**

Head office

101 Colonel By Drive

Ottawa, Ontario K1A 0K2

Canadian forces recruiting centres: Vancouver, Edmonton, Calgary, Saskatoon, Winnipeg, Toronto (Willowdale), Sudbury, Ottawa, London, Hamilton, Saint-Jérôme, Rimouski, Quebec, Montreal, Saint John, Halifax, St. John's.

Canadian forces recruiting centre detachments: Victoria, Kamloops, Regina, Windsor, St. Catharines, Peterborough, North Bay, Kitchener, Kingston, Trois-Rivières, Sherbrooke, Sept-Îles, Rouyn - Noranda, Hull, Chicoutimi, Bathurst, Moncton, Charlottetown, Sydney, Corner Brook.

Offices of information: Victoria, Edmonton, Westwin, Belleville, Hornell Heights, Ottawa, Toronto (Willowdale), Saint-Hubert, Halifax.

Information: Ottawa/Hull (613) 995-2534 or 996-2353 (media calls).

The department controls and manages the Canadian Armed Forces and all matters relating to national defence, including civil defence. It is responsible for the construction and maintenance of all defence establishments and facilities required for the defence of Canada.

Minister responsible:

Minister of National Defence

## **National Energy Board**

Head office

Trebla Building

473 Albert Street

Ottawa, Ontario K1A 0E5

Reserves office: Calgary.

Information: Ottawa/Hull (613) 998-7192.

The Board regulates specific areas of the oil, gas and electrical industries in the public interest, and advises the government on matters relating to the development and use of energy resources.

Minister responsible:

Minister of Energy, Mines and Resources

## **National Farm Products Marketing Council**

Martel Building, 13th Floor

270 Albert Street

(PO Box 3430, Station D)

Ottawa, Ontario K1P 6L4

Information: Ottawa/Hull (613) 995-2297.

The Council advises the Minister of Agriculture on the establishment and operation of national agricultural marketing agencies, and works with these agencies and provincial governments in promoting more effective marketing of farm products. Chicken, egg and turkey marketing agencies have already been established.

Minister responsible:

Minister of Agriculture

## **National Film Board**

Operational headquarters

3155 Côte de Liesse Road

Saint-Laurent, Quebec

(Mail: PO Box 6100, Station A,

Montreal, Quebec H3C 3H5)

Head office

150 Kent Street

Ottawa, Ontario K1A 0M9

Regional distribution offices: Vancouver, Winnipeg, Toronto, Ottawa, Montreal, Halifax.

Other offices: throughout Canada.

Regional English program (production) offices: Vancouver, Edmonton, Winnipeg, Toronto, Halifax.

Regional French programs (production) offices: Winnipeg, Toronto, Moncton.

Information: Ottawa/Hull (613) 992-5492; Montreal (514) 283-9253 (Communications).

The National Film Board initiates and promotes the production, marketing and distribution of films and other audio-visual materials designed to interpret Canada to Canadians and other nations.

Minister responsible:

Minister of Communications

## **National Library of Canada**

395 Wellington Street

Ottawa, Ontario K1A 0N4

Information: Ottawa/Hull (613) 995-7969.

The National Library's mandate is to promote the development of library and information resources and services and to facilitate their access; to ensure acquisition, preservation and access concerning

the public heritage of Canada; and to support Canadian studies for the benefit of all Canadians.

Minister responsible:

Minister of Communications

### **National Museums of Canada**

Head office

Centennial Towers, 8th Floor

200 Kent Street

Ottawa, Ontario K1A 0M8

Information: Ottawa/Hull (613) 954-4400.

National Museums of Canada aims to demonstrate the products of nature and the works of man, with special but not exclusive reference to Canada. Its policy supports activities that increase public access to the collections of Canadian museums and art galleries, and that lead to greater preservation of those collections. NMC comprises, in a single administration, Canada's four national museums in the Capital and a series of national programs that serve the Canadian public both directly and through hundreds of museums and related institutions across the country.

Minister responsible:

Minister of Communications

### **National Parole Board**

Headquarters

Sir Wilfrid Laurier Building

340 Laurier Avenue West

Ottawa, Ontario K1A 0R1

Regional offices: Vancouver (Burnaby), Saskatoon, Kingston, Montreal, Moncton.

Information: Ottawa/Hull (613) 995-1308.

The National Parole Board is responsible for granting, denying or revoking parole for inmates of all federal institutions and inmates of provincial institutions in the Prairie and Atlantic provinces. It may also revoke mandatory supervision of federal inmates. The Board's work includes establishing eligibility criteria for conditional release, conditions of release, implementation of procedural safeguards, pardon recommendations, and communication and consultation with other components of the criminal justice system.

Minister responsible:

Solicitor General of Canada

### **National Research Council Canada**

Head office

Montreal Road

Ottawa, Ontario K1A 0R6

Other offices: throughout Canada.

Information: Ottawa/Hull (613) 993-9101.

The National Research Council is the government's chief instrument for carrying out research and development in the natural sciences and engineering. NRC runs an extensive program of financial and technical support for industry; operates and supports major national facilities; maintains the national science library; publishes the Canadian journals of research; and plays a major part in supporting the national scientific infrastructure of committees, networks and learned societies.

Minister responsible:

Minister of State for Science and Technology

### **Natural Sciences and Engineering Research Council of Canada**

200 Kent Street

Ottawa, Ontario K1A 1H5

Information: Ottawa/Hull (613) 995-5992.

The Natural Sciences and Engineering Research Council is a federal agency that supports advanced research and development in the natural sciences and engineering at Canadian universities and encourages collaboration between the academic and industrial sectors. In 1985-86, the Council invested \$311.6 million in university research and researcher training.

Minister responsible:

Minister of State for Science and Technology

### **Northern Canada Power Commission**

Head office

7509 51st Avenue

(PO Box 5700, Station L)

Edmonton, Alberta T6C 4J8

District offices: Whitehorse, Yellowknife, Frobisher Bay.

Information: Edmonton (403) 465-3377.

The Northern Canada Power Commission is a federal Crown corporation that operates under the authority of the Northern Canada Power Commission Act. It is concerned with the planning, construction and management of public utilities, primarily electrical, on a commercial basis.

Minister responsible:

Minister of Indian and Northern Affairs

**Northern Pipeline Agency Canada**

Centennial Towers, Station 210  
200 Kent Street  
Ottawa, Ontario K1A 0E6  
Information: Ottawa/Hull (613) 993-7466.

The Agency was established to oversee the planning and construction, by Foothills Pipe Lines (Yukon) Ltd, of the Alaska Highway gas pipeline from the Alaska-Yukon border to the lower 48 states, so as to maximize economic benefits and minimize adverse effects on people and the environment along the route.

Minister responsible:  
Minister of Transport

**Office of the Auditor General of Canada**

Head office  
C.D. Howe Building  
240 Sparks Street  
Ottawa, Ontario K1A 0G6  
Regional offices: Vancouver, Edmonton, Regina, Winnipeg, Montreal, Halifax.  
Information: Ottawa/Hull (613) 995-3766.

The Office of the Auditor General of Canada is responsible for examining the Public Accounts of Canada, including those relating to the Consolidated Revenue Fund, public property and various Crown corporations. The Auditor General performs comprehensive audits of departments, agencies and certain Crown corporations, and conducts government-wide studies of issues involving the management of financial, physical and human resources of the federal government. The Auditor General reports annually to the House of Commons but may make a special report to the House on any matter that he/she believes should not be deferred until the annual report.

The Auditor General reports directly to Parliament.

**Official Languages  
(Office of the Commissioner of)**

Head office  
110 O'Connor Street  
Ottawa, Ontario K1A 0T8  
Regional offices: Edmonton, Winnipeg, Sudbury, Montreal, Moncton.  
Information: Ottawa/Hull (613) 995-7717 (collect calls are accepted).

The Commissioner of Official Languages ensures that Canada's two official languages, English and

French, enjoy equality of status and equal rights and privileges in all federal institutions.  
The Commissioner reports directly to Parliament.

**Government of Canada Office  
for the 1988 Olympic Winter Games**

Headquarters  
255 Albert Street  
Suite 602  
Ottawa, Ontario K1A 0K9  
Regional office: Calgary.  
Information: Ottawa/Hull (613) 990-1988.

The Government of Canada Office for the 1988 Olympic Winter Games is responsible for coordinating all federal activities in support of the 1988 Winter Olympics, and for liaison and negotiation with the key bodies associated with the organization of the Games.

Minister responsible:  
Minister of State for Fitness and Amateur Sport

**Pension Appeals Board**

PO Box 8567  
Postal Terminal  
Ottawa, Ontario K1G 3H9  
Information: Ottawa/Hull (613) 995-0612.

The Pension Appeals Board, established under the Canada Pension Plan Act, hears appeals under the Canada Pension Plan and under certain provincial pension plans. The Board consists of judges of the Federal Court or of a superior, district or county court of a province.

Minister responsible:  
Minister of Health and Welfare

**Petro-Canada**

Head office  
150 6th Avenue Southwest  
(PO Box 2844)  
Calgary, Alberta T2P 3E3  
Other offices: Ottawa.  
Information: Calgary (403) 296-5850 (Public Affairs).

Petro-Canada is Canada's national energy corporation. Its mandate is to increase Canada's future energy supply through further exploration and development of oil and gas and other energy sources.

Minister responsible:  
Minister of Energy, Mines and Resources

## **Ports Canada**

National office  
99 Metcalfe Street  
Ottawa, Ontario K1A 0N6

Ports Canada ports: Vancouver, Prince Rupert, Montreal, Quebec, Halifax, St. John's.

Canada Ports Corporation ports: Churchill, Port Colborne, Prescott, Chicoutimi, Trois-Rivières, Sept-Îles, Belledune, Saint John.

Information: Ottawa/Hull (613) 957-6787 (95-PORTS).

Port administration and policy: Canada Ports Corporation operates a federal system of ports on a decentralized basis. Six of the ports, in Prince Rupert, Vancouver, Montreal, Quebec, Halifax and St. John's, have local port corporations that function with a high degree of autonomy and in accordance with common commercial principles. The other ports, directly administered by the Canada Ports Corporation, are in Churchill, Port Colborne, Prescott, Chicoutimi, Trois-Rivières, Sept-Îles, Belledune and Saint John.

The Canada Ports Corporation, which handles nearly half of all Canadian port traffic and more than 95% of container traffic, is also responsible for implementation of the national port policy. The policy provides for the services necessary to Canada's international shipping trade at national, regional and local levels.

Minister responsible:  
Minister of Transport

## **Prairie Farm Rehabilitation Administration**

Head office  
Motherwell Building  
1901 Victoria Avenue  
Regina, Saskatchewan S4P 0R5  
Liaison office: Ottawa.

Alberta affairs office: Edmonton.

Manitoba affairs office: Winnipeg.

Geotechnical division: Saskatoon.

Regional engineering divisions: Calgary, Regina, Winnipeg.

District engineering offices: Lethbridge.

Project offices: Cutbank.

Senior soil conservationists: Winnipeg, Saskatoon, Edmonton.

Area soil conservationists: Lethbridge, Hanna, Peace River, Vegreville, Rosetown, Swift Current, Watrous, Weyburn, Brandon, Morden, Dauphin.

Area soil and water conservation offices: Hanna, Rosetown, Swift Current, Watrous, Weyburn, Brandon.

Local soil and water conservation offices: throughout the Prairie provinces.

Irrigation division: Consul, Eastend, Maple Creek, Rush Lake, Swift Current, Val Marie.

Demonstration farm: Outlook.

Tree nursery division: Indian Head.

Hydraulics laboratory: Regina.

Community pastures: throughout the Prairie provinces.

Bull stations: Maple Creek, McAuley.

Information: Regina (306) 780-5070 or 780-5071, or any office listed above.

The main activities of the Prairie Farm Rehabilitation Administration are related to soil and water conservation and development, and land use adjustment in the Prairie provinces.

Minister responsible:  
Minister of Agriculture

## **Privacy Commissioner of Canada**

Place de Ville  
Tower B, 14th Floor  
112 Kent Street  
Ottawa, Ontario K1A 1H3

Information: Ottawa/Hull (613) 995-2410 or toll-free 1-800-267-0441.

The Privacy Commissioner is appointed by Parliament to investigate complaints by individuals who allege that the federal government has failed to comply with their rights to personal information as outlined in the Privacy Act.

The Privacy Commissioner of Canada reports directly to Parliament.

## **Public Archives Canada**

Head office  
395 Wellington Street  
Ottawa, Ontario K1A 0N3

Federal records centres: Vancouver (Burnaby), Edmonton, Winnipeg, Toronto (Etobicoke), Ottawa, Montreal, Halifax.

Laurier House (historical museum): Ottawa.

Information: Ottawa/Hull (613) 995-5138.

As a research institution, Public Archives Canada is responsible for acquiring important records of any kind concerning the different aspects of Canadian life and the country's development. The Public



Archives also provides the services and facilities needed to make these records accessible to the public across Canada.

Minister responsible:  
Minister of Communications.

### **Public Service Commission**

Head office  
L'Esplanade Laurier, West Tower  
300 Laurier Avenue West  
Ottawa, Ontario K1A 0M7

Regional and district offices: Whitehorse, Yellowknife, Vancouver, Edmonton, Regina, Winnipeg, Toronto, Ottawa, Montreal, Quebec (Sillery), Moncton, Halifax, Charlottetown, St. John's.

Information: Ottawa/Hull (613) 996-5010.

The Commission is the staffing arm of the federal public service. It handles a variety of matters, including appeal decisions and staff training.

Minister responsible:  
Secretary of State

### **Public Service Staff Relations Board**

C.D. Howe Building  
West Tower, 6th Floor  
240 Sparks Street  
(PO Box 1525, Station B)  
Ottawa, Ontario K1P 5V2

Information: Ottawa/Hull (613) 990-1800.

The Board administers the Public Service Staff Relations Act, which governs collective bargaining, the grievance process, and the adjudication procedure for the federal public service.

Minister responsible:  
President of the Queen's Privy Council for Canada

### **Public Works Canada**

Head office  
Sir Charles Tupper Building  
Confederation Heights  
Ottawa, Ontario K1A 0M2

Regional offices: Vancouver, Edmonton, Toronto (Willowdale), Hull, Montreal, Halifax.

Field offices: throughout Canada.

Information: Ottawa/Hull (613) 998-7724.

The department is responsible for the management of the public works of Canada and the federal real

estate properties. The Minister of Public Works is also responsible for the Canada Museums Construction Corporation.

Minister responsible:  
Minister of Public Works

### **Department of Regional Industrial Expansion**

Head office  
C.D. Howe Building  
235 Queen Street  
Ottawa, Ontario K1A 0H5

Regional offices: Whitehorse, Yellowknife, Vancouver, Edmonton, Saskatoon, Winnipeg, Toronto, Montreal, Moncton, Halifax, Charlottetown, St. John's.

Local offices: throughout Canada.

Information: Ottawa/Hull (613) 995-8900.

DRIE's mandate is to increase economic prosperity by promoting productive investments in industrial development and renewal in all regions of Canada and in particular in the economically less-privileged parts of the country. It encourages investment in viable industrial undertakings in manufacturing, resource processing and related service industries, tourism, and small business.

Ministers responsible:  
Minister of Regional Industrial Expansion  
Minister of State for Small Businesses and Tourism

### **Revenue Canada, Customs and Excise**

Head office  
Connaught Building  
Mackenzie Avenue  
Ottawa, Ontario K1A 0L5

Regional offices: Customs — Vancouver, Calgary, Winnipeg, Windsor, Hamilton, Toronto, Ottawa, Montreal, Quebec, Halifax; Excise — Vancouver, Calgary, Winnipeg, London, Toronto, Ottawa, Montreal, Quebec, Halifax.

Other offices, including district and customs offices: throughout Canada.

Information: Ottawa/Hull (613) 957-0275.

Customs and Excise is responsible for assessing and collecting duties and taxes on imported and domestically produced goods, as well as on the transportation of persons by air. It controls the international movement of persons and goods, and provides Canadian industry with the protection to which it is entitled under the customs laws. The Customs Act, the Customs Tariff, the Special Import Measures Act, the Excise Act and the Excise

Tax Act are administered by Customs and Excise, as are statutes of other government departments and agencies that relate to the international movement of persons and goods.

Minister responsible:

Minister of National Revenue

### **Revenue Canada Taxation**

Head office

875 Heron Road

Ottawa, Ontario K1A 0L8

District offices: all provincial capitals (except Fredericton) as well as Vancouver, Penticton, Calgary, Saskatoon, Thunder Bay, Sudbury, Hamilton, Windsor, London, Kitchener, St. Catharines, Mississauga, Scarborough, Belleville (with a sub-office in Kingston), Ottawa, Rouyn, Laval, Montreal, Saint-Hubert, Sherbrooke, Quebec district office sub-offices in Chicoutimi, Rimouski and Trois-Rivières, Saint John (with a sub-office in Bathurst), Sydney.

Information: any district taxation office.

Revenue Canada Taxation administers the government's tax policy, which is initiated by the Department of Finance. It assesses and collects individual and corporate income taxes under the Income Tax Act of Canada. Individual income tax is collected for all provinces except Quebec, and corporate tax is collected for all provinces except Quebec, Ontario and Alberta. The department also collects Canada Pension Plan contributions and unemployment insurance premiums.

Minister responsible:

Minister of National Revenue

### **Royal Canadian Mint**

Head office

320 Sussex Drive

Ottawa, Ontario K1A 0G8

Regional offices: Winnipeg, Ottawa.

Information: Ottawa/Hull (613) 993-3500 (administration); to order Olympic gold coins call, in the Montreal area, 1-800-361-0170, and in the rest of Canada, 1-800-267-1871.

The Mint is authorized to produce and supply Canadian coins, including circulating, collector and bullion coinage. The Mint also produces medals, medallions, tokens, trade dollars, plaques and badges and is authorized to melt, assay and refine gold. It accepts contracts to mint coinage for other countries as well.

Minister responsible:

Minister of Supply and Services

### **Royal Canadian Mounted Police**

Head office

Headquarters Building

1200 Alta Vista Drive

Ottawa, Ontario K1A 0R2

Local offices and detachments: throughout Canada.

Information: Ottawa/Hull (613) 993-9590.

As the federal police force, the RCMP is responsible for the prevention and detection of offences committed against federal statutes and for the provision of investigative and protective services to federal departments and agencies.

Minister responsible:

Solicitor General of Canada

### **The Saint Lawrence Seaway Authority**

Head office

Place de Ville, Tower A

320 Queen Street

Ottawa, Ontario K1R 5A3

Regional offices: Cornwall, St. Catharines, Montreal (Saint-Lambert).

Information: Ottawa/Hull (613) 598-4614.

The Authority was incorporated for the purposes of constructing, operating and maintaining, either on its own in Canada or in conjunction with works undertaken by an appropriate authority in the United States, a deep waterway between the Port of Montreal and Lake Erie; constructing, operating and maintaining alone or jointly or in conjunction with an appropriate authority in the United States, bridges connecting Canada with the United States; acquiring shares or property of any bridge company; and operating and managing bridges.

Minister responsible:

Minister of Transport

### **Science Council of Canada**

Berger Building

100 Metcalfe Street

Ottawa, Ontario K1P 5M1

Information: Ottawa/Hull (613) 992-1142.

The Science Council of Canada, created in 1966, is Canada's national advisory agency on science and technology policy.

Minister responsible:

Minister of State for Science and Technology

**Secretary of State**

Head office

Jules Léger Building

15 Eddy Street

Hull, Quebec

(Mail: Ottawa, Ontario K1A 0M5)

Regional offices: Vancouver, Edmonton, Regina, Winnipeg, Toronto, Montreal, Moncton, Halifax, St. John's.

Local offices and courts of Canadian citizenship: throughout Canada.

Information: Ottawa/Hull (819) 997-0055.

The Secretary of State supports youth and multiculturalism and encourages the use of the two official languages. It has a central responsibility for the Canadian government's domestic human rights interests, and is responsible for the administration of the Citizenship Act and for organizing and managing ceremonial and special occasions.

Minister responsible:

Secretary of State and Minister Responsible for Multiculturalism

**Social Sciences and Humanities Research Council of Canada**

255 Albert Street

(PO Box 1610)

Ottawa, Ontario K1P 6G4

Information: Ottawa/Hull (613) 992-0691.

The Council's objective is to promote and assist research and scholarship in the social sciences and humanities.

Minister responsible:

Secretary of State

**Solicitor General Canada**

Central office

Sir Wilfrid Laurier Building

340 Laurier Avenue West

Ottawa, Ontario K1A 0P8

Regional offices: Vancouver, Edmonton, Saskatoon, Toronto, Montreal, Moncton.

Information: Ottawa/Hull (613) 991-2818; Victim Resource Centre, toll-free 1-800-267-0454.

The Ministry of the Solicitor General brings the major federal operational elements concerned with the administration of the criminal justice system under the direction and supervision of the Solicitor General. He/she is responsible for internal security, law enforcement, penitentiaries, paroles

and remissions, and has jurisdiction over Correctional Service Canada, the National Parole Board, the RCMP and the Canadian Security Intelligence Service.

Minister responsible:

Solicitor General of Canada

**Standards Council of Canada**

Head office

350 Sparks Street, Suite 1203

Ottawa, Ontario K1R 7S8

Regional office: (International Standardization Branch and Standards Sales Branch) Mississauga.

Information: Ottawa/Hull (613) 238-3222.

The Council promotes voluntary standardization in fields relating to the construction, manufacture, production, quality, performance and safety of buildings, structures, manufactured articles, products and other goods not expressly provided for by law.

Minister responsible:

Minister of Consumer and Corporate Affairs

**Statistics Canada**

Head office

R.H. Coats Building

Tunney's Pasture

Ottawa, Ontario K1A 0T6

Regional offices: Vancouver, Edmonton, Regina, Winnipeg, Toronto, Sturgeon Falls, Montreal, Halifax, St. John's.

Information: Ottawa/Hull (613) 990-8116.

As Canada's central statistical agency, Statistics Canada collects, processes, analyses and disseminates data on virtually every aspect of the nation's society and economy, and provides inquiry and consultation services to statistical users. In addition, the agency co-operates in the statistical activities of other federal and provincial departments and fulfils a range of international statistical commitments.

Minister responsible:

Minister of Supply and Services

**Status of Women Canada**

151 Sparks Street, Room 1005

Ottawa, Ontario K1A 1C3

Information: Ottawa/Hull (613) 995-7835.

Status of women activities in the federal government: this office monitors federal department

policies and programs to promote equality between the sexes, co-ordinates measures at the federal level to improve the status of women, and ensures federal-provincial and non-governmental consultation on status of women questions.

Minister responsible:

Minister responsible for the Status of Women

## Supply and Services Canada

Head office

Place du Portage

Phase III

11 Laurier Street

Hull, Quebec

(Mail: Ottawa, Ontario K1A 0S5)

Regional offices: Vancouver (Richmond), Edmonton, Winnipeg, Calgary, Toronto (Etobicoke), Ottawa, Montreal, Quebec, Dartmouth.

Other offices: throughout Canada.

Crown Assets Distribution Centres: Vancouver (Richmond), Edmonton, Winnipeg, Mississauga, Ottawa, Hull, Montreal, Dartmouth.

Information: Ottawa/Hull (819) 997-6363; Crown Assets Distribution Centres, Ottawa/Hull (819) 994-0074.

Supply and Services Canada is the chief purchasing agent and central accountant for the government of Canada.

Minister responsible:

Minister of Supply and Services

## Tariff Board

Journal Tower South

365 Laurier Avenue West

Ottawa, Ontario K1A 0G7

Information: Ottawa/Hull (613) 990-2452.

The Board inquires into and reports on any matter relating to goods that are subject to or exempt from customs or excise duties.

Minister responsible:

Minister of Finance

## Telefilm Canada

Head office

National Bank of Canada Tower, 25th Floor

600 De la Gauchetière Street West

Montreal, Quebec H3B 4L2

Regional offices: Vancouver, Toronto, Halifax, Los Angeles (US), Paris (France), London (England).

Information concerning programs: Montreal (514) 283-8546; Los Angeles office (213) 859-0268, 144 South Beverly Drive, Suite 400, Beverly Hills, California, US 90212; Paris office (33) 1-4563.70.45, 15 De Berri Street, 75008 Paris, France; London office (44.1) 437-8308, 44 Great Marlborough, London, England W1V 1D8.

Telefilm Canada, formerly known as the Canadian Film Development Corporation, is charged with fostering the growth and development of the private sector of the Canadian film industry. It does not produce or distribute programming itself, but finances the production and commercial distribution of feature films and television programs produced by Canadian companies. Telefilm Canada is headed by a board of directors and a chairman appointed by the Governor in Council, and is financed by a yearly appropriation from Parliament.

Minister responsible:

Minister of Communications

## Teleglobe Canada

Head office

680 Sherbrooke Street West

Montreal, Quebec H3A 2S4

Regional office: Toronto

Information: Montreal (514) 289-7272.

Teleglobe Canada is the Crown corporation responsible for providing Canada with international telephone, telex, telegraph, data, facsimile and broadcast services, as well as new, specialized services such as international teleconferencing and private satellite business services.

Minister responsible:

Minister of Regional Industrial Expansion

## Textile and Clothing Board

257 Slater Street

Ottawa, Ontario

(Mail: c/o 235 Queen Street, Ottawa, Ontario K1A 0H5)

Information: Ottawa/Hull (613) 954-2771.

The Textile and Clothing Board conducts inquiries to determine whether imports of textiles and clothing are causing or threatening to cause serious injury to Canadian production and employment, examines the plans of Canadian producers to increase their ability to meet international competition in Canada, and makes recommendations



to the federal government as to whether or not special measures of protection are warranted against certain imports.

Minister responsible:

Minister of Regional Industrial Expansion

### **Transport Canada**

Head office

Transport Canada Building

Place de Ville

Tower C, 21st Floor

330 Sparks Street

Ottawa, Ontario K1A 0N5

Regional offices: Aviation Group and Airports Authority Group: Vancouver, Edmonton, Winnipeg, Toronto (Willowdale), Montreal (Dorval), Moncton; Marine Group: Vancouver, Toronto, Quebec, Dartmouth, St. John's; Surface Group: Winnipeg (grain transportation), Sainte-Thérèse (Blainville) (motor vehicle testing), St. John's (ferries); Transport Dangerous Goods: Vancouver, Saskatoon, Winnipeg, Toronto, Montreal, Halifax; Policy and Co-ordination Group and Ferry Services: St. John's.

Pilotage Authority offices: Vancouver, Cornwall, Montreal, Halifax.

Other offices: throughout Canada.

Information: Ottawa/Hull (613) 996-5861.

The jurisdiction of the department covers all federally regulated railways, as well as the Aviation, Airports Authority, Marine and Surface Groups.

Minister responsible:

Minister of Transport

### **Treasury Board of Canada**

L'Esplanade Laurier

140 O'Connor Street

Ottawa, Ontario K1A 0R5

Information: Ottawa/Hull (613) 957-2400.

The Treasury Board of Canada is a committee of six members of the Queen's Privy Council, including the President of the Treasury Board and the Minister of Finance. The Board advises Cabinet on the selection of programs and projects that will achieve the government's objectives in the most effective manner in accordance with its priorities, and it promotes the efficient use of the human, financial and material resources needed by departments and agencies to carry out their programs and projects.

Minister responsible:

President of the Treasury Board

### **Veterans Affairs**

Head office

Daniel J. MacDonald Building

161 Grafton Street

(PO Box 7700)

Charlottetown, Prince Edward Island

C1A 8M9

Field Operations Branch

East Memorial Building, 5th Floor

284 Wellington Street

Ottawa, Ontario K1A 0P4

Information: Charlottetown (902) 566-8457;

Ottawa/Hull (613) 992-4234.

The Department of Veterans Affairs provides support for the economic, social, mental and physical well-being of veterans, certain civilians and their dependents.

The Veterans Portfolio is composed of the Department of Veterans Affairs and four associated agencies: the Bureau of Pensions Advocates, the Canadian Pension Commission, the Pension Review Board, and the War Veterans Allowance Board.

Minister responsible:

Minister of Veterans Affairs

(the Minister of Veterans Affairs is also the Canadian agent for the Commonwealth War Graves Commission)

### **Bureau of Pensions Advocates**

Head office

Daniel J. MacDonald Building, 2nd Floor

161 Grafton Street

(PO Box 7700)

Charlottetown, Prince Edward Island

C1A 8M9

District offices: Victoria, Vancouver, Edmonton, Calgary, Saskatoon, Regina, Winnipeg, North Bay, London, Hamilton, Toronto, Kingston, Ottawa, Montreal, Quebec, Saint John, Halifax, Charlottetown, St. John's.

Information: Charlottetown (902) 566-8641.

Legal assistance: the Bureau provides free legal service to applicants and pensioners in accordance with the Pension Act and allied statutes and orders. This service includes the counselling of applicants and the preparation and presentation of claims to adjudicating bodies, the Canadian Pension Commission, and the Pension Review Board. The Bureau also represents applicants for War Veterans Allowance on appeal to the War Veterans Allowance Board.

### **Canadian Pension Commission**

Head office

Daniel J. MacDonald Building, 2nd Floor  
(PO Box 9900)

Charlottetown, Prince Edward Island  
C1A 8V6

District offices: provincial capitals (except Fredericton) as well as Vancouver, Calgary, Saskatoon, Hamilton, London, Peterborough, Kingston, North Bay, Ottawa, Montreal, Saint John.

Information: Charlottetown (902) 566-8851 or 566-8869, or nearest district office.

Pensions: the Commission has responsibility for veterans' pensions as compensation for disability or death related to military service and as compensation to former prisoners of war.

### **Pension Review Board**

Head office

Daniel J. MacDonald Building, Ground Floor  
161 Grafton Street

(PO Box 7700)  
Charlottetown, Prince Edward Island  
C1A 8M9

Information: Charlottetown (902) 566-8620.

Appeals: the Board reviews and renders decisions in cases of veterans' appeals against decisions of the Canadian Pension Commission.

### **War Veterans Allowance Board**

Head office

Daniel J. MacDonald Building, 2nd Floor  
161 Grafton Street

(PO Box 7700)  
Charlottetown, Prince Edward Island  
C1A 8M9

Information: Charlottetown (902) 566-8080.

Appeal/allowance applicants: the Board acts as a court of appeal for dissatisfied allowance applicants and recipients. It reviews decisions of the Department of Veterans Affairs to ensure that adjudication is consistent with the intent of legislation and is uniformly applied throughout Canada.

The Board adjudicates pursuant to specific sections of legislation where it has sole jurisdiction, provides interpretation of the acts and regulations, and advises the Minister on the regulations.

### **Commonwealth War Graves Commission Canadian Agency**

East Memorial Building, 1st Floor

284 Wellington Street

Ottawa, Ontario K1A 0P4

Information: Ottawa/Hull (613) 992-3224.

Commonwealth war graves and memorials: the Commission's duties are to mark and maintain the graves of members of the Commonwealth Forces who died in the two World Wars, to build memorials to those whose graves are unknown, and to keep records and registers. The Canadian agency carries out these duties in North America. It also provides information to the public on the location of Commonwealth war graves and memorials throughout the world.

### **VIA Rail Canada Inc.**

Head office

2 Place Ville Marie

(PO Box 8116)

Montreal, Quebec H3B 2G6

Regional offices: Vancouver, Winnipeg, Toronto, Montreal, Moncton.

Information: Montreal (514) 286-2311.

VIA Rail Canada Inc: VIA Rail Canada became a Crown corporation on April 1, 1978. VIA manages rail passenger service in Canada, with the exception of commuter trains, and operates a network of train services covering Canada from coast to coast. These services range from the trans-continental trains to the fast inter-city trains serving parts of Eastern Canada. VIA's fleet of vehicle equipment includes conventional coaches, sleeping cars, meal service cars, and the ultramodern LRC (Light, Rapid, Comfortable) trains.

Minister responsible:

Minister of Transport

## APPENDIX B

# FEDERAL LEGISLATION

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List of public general acts passed by the 33rd Parliament of Canada from December 1984 to April 1987. For further details, consult the *Statutes of Canada*. The date of royal assent follows each chapter number.

### First session, 33rd Parliament, Session 1984

Chapter 41 (December 20, 1984). Ontario and Manitoba Courts Amendment Act.

Chapter 42 (December 20, 1984). An Act to amend the Farm Products Marketing Agencies Act.

Chapter 43 (December 20, 1984). An Act to amend the Freshwater Fish Marketing Act.

Chapter 44 (December 20, 1984). An Act to amend the Saltfish Act.

Chapter 45 (December 20, 1984). An Act to amend the Income Tax Act and related statutes.

Chapter 46 (December 20, 1984). An Act to amend the Petroleum and Gas Revenue Tax Act.

Chapter 47 (December 20, 1984). An Act to amend the Customs Act and the Customs Tariff.

Chapter 48 (December 20, 1984). Income Tax Conventions Interpretation Act.

Chapter 49 (December 20, 1984). Foreign Extra-territorial Measures Act.

Chapter 50 (December 20, 1984). Appropriation Act No. 3, 1984-85.

### First session, 33rd Parliament, Session 1984-85

Chapter 1 (February 26, 1985). An Act to amend the Public Works Act and the Public Lands Grants Act.

Chapter 2 (February 26, 1985). An Act to amend the Currency Act.

Chapter 3 (February 26, 1985). An Act to amend the Excise Tax Act and the Excise Act.

Chapter 4 (February 26, 1985). An Act to amend the Pension Act.

Chapter 5 (February 27, 1985). Borrowing Authority Act, 1984-85, (No. 2).

Chapter 6 (February 27, 1985). International Centre for Ocean Development Act.

Chapter 7 (February 27, 1985). An Act to amend the Western Grain Stabilization Act.

Chapter 8 (March 29, 1985). An Act to amend the Small Businesses Loans Act.

Chapter 9 (March 29, 1985). Canadian Commercial Bank Financial Assistance Act.

Chapter 10 (March 29, 1985). Appropriation Act No. 4, 1984-85.

Chapter 11 (March 29, 1985). Appropriation Act No. 1, 1985-86.

Chapter 12 (April 3, 1985). An Act to amend the Customs Tariff.

Chapter 13 (May 16, 1985). Crown Assets Disposal Corporation Dissolution Act.

Chapter 14 (May 16, 1985). An Act to confirm certain acts or things done on behalf of the Deputy Minister of National Revenue for Customs and Excise and to amend the Customs Act and the Special Import Measures Act.

Chapter 15 (May 16, 1985). Pioneer Trust Payment Continuation Act.

Chapter 16 (May 16, 1985). An Act to amend the Bretton Woods Agreements Act and to repeal the International Development Association Act and amend certain other Acts in consequence thereof.

Chapter 17 (May 16, 1985). Meat Inspection Act.

Chapter 18 (May 29, 1985). An Act to amend the Unemployment Insurance Act, 1971.

Chapter 19 (June 20, 1985). Criminal Law Amendment Act, 1985.

Chapter 20 (June 20, 1985). Investment Canada Act.

Chapter 21 (June 20, 1985). An Act to repeal the Prairie Farm Assistance Act and to amend the Crop Insurance Act in consequence thereof.

Chapter 22 (June 20, 1985). Sports Pool and Loto Canada Winding-Up Act.

Chapter 23 (June 20, 1985). An Act to implement conventions between Canada and the Republic of Zambia, Canada and the Kingdom of Thailand, Canada and the Republic of Cyprus and Canada

and the Federative Republic of Brazil for the avoidance of double taxation with respect to income tax.

Chapter 24 (June 20, 1985). Appropriation Act No. 2, 1985-86.

Chapter 25 (June 28, 1985). An Act to amend the Oil Substitution and Conservation Act and the Canadian Home Insulation Program Act.

Chapter 26 (June 28, 1985). An Act to amend certain Acts having regard to the Canadian Charter of Rights and Freedoms.

Chapter 27 (June 28, 1985). An Act to amend the Indian Act.

Chapter 28 (June 28, 1985). An Act to amend the Aeronautics Act.

Chapter 29 (June 28, 1985). Supplementary Fiscal Equalization Payments 1982-87 Act.

Chapter 30 (June 28, 1985). An Act to amend the Old Age Security Act.

Chapter 31 (June 28, 1985). An Act to amend the Fisheries Act.

Chapter 32 (June 28, 1985). An Act to amend the Farm Improvement Loans Act.

Chapter 33 (June 28, 1985). An Act to amend the Fisheries Improvement Loans Act.

Chapter 34 (June 28, 1985). An Act to amend the Advance Payments for Crops Act.

Chapter 35 (June 28, 1985). Northern Transportation Company Limited Disposal Authorization Act.

Chapter 36 (June 28, 1985). An Act to amend the Agricultural Stabilization Act.

Chapter 37 (June 28, 1985). Borrowing Authority Act, 1985-86 (No. 2).

Chapter 38 (June 28, 1985). An Act to amend the Judges Act, the Federal Court Act, the Canada Pension Plan and the National Defence Act in relation to judicial matters and to amend An Act to amend the Judges Act and the Federal Court Act in consequence thereof.

Chapter 39 (June 28, 1985). An Act to amend the House of Commons Act.

Chapter 40 (June 28, 1985). An Act to amend the Western Grain Transportation Act.

Chapter 41 (October 29, 1985). Crown Corporations Dissolution Authorization Act.

Chapter 42 (October 29, 1985). An Act to amend the Customs Tariff.

Chapter 43 (October 29, 1985). An Act to amend the Canadian Institute for International Peace and Security Act and certain other Acts in relation thereto.

Chapter 44 (October 29, 1985). An Act to amend the Criminal Code (pari-mutuel betting).

Chapter 45 (October 29, 1985). An Act to amend the statute law relating to income tax and to make a related amendment to the Tax Court of Canada Act.

Chapter 46 (October 29, 1985). Condominium Ordinance Validation Act.

Chapter 47 (December 12, 1985). An Act to amend the Seeds Act and the Canada Grain Act.

Chapter 48 (December 12, 1985). An Act to amend the Governor General's Act, the Governor General's Retiring Annuity Act, the Salaries Act and the Judges Act.

Chapter 49 (December 20, 1985). Canada Development Corporation Reorganization Act.

Chapter 50 (December 20, 1985). An Act to amend the Criminal Code (prostitution).

Chapter 51 (December 20, 1985). Financial Institutions Depositors Compensation Act.

Chapter 52 (December 20, 1985). An Act to amend the Criminal Code (lotteries).

Chapter 53 (December 20, 1985). An Act to amend the Tax Rebate Discounting Act.

Chapter 54 (December 20, 1985). Appropriation Act No. 3, 1985-86.

#### **First session, 33rd Parliament, Session 1984-85-86**

Chapter 1 (February 13, 1986). Customs Act.

Chapter 2 (February 13, 1986). An Act to amend the Petroleum and Gas Revenue Tax Act and the Income Tax Act.

Chapter 3 (February 13, 1986). An Act to amend the Divorce Act.

Chapter 4 (February 13, 1986). Divorce Act, 1985.

Chapter 5 (February 13, 1986). Family Orders and Agreements Enforcement Assistance Act.

Chapter 6 (February 13, 1986). An Act to amend the Income Tax Act and related statutes and to amend the Canada Pension Plan, the Unemployment Insurance Act, 1971, the Financial Administration Act and the Petroleum and Gas Revenue Tax Act.

Chapter 7 (February 13, 1986). An Act to implement an agreement between Canada and the Union of Soviet Socialist Republics, a convention between Canada and the Cooperative Republic of Guyana and an agreement between Canada and India for the avoidance of double taxation with respect to income tax.

Chapter 8 (March 4, 1986). Representation Act, 1985.

Chapter 9 (March 4, 1986). An Act to amend the Excise Tax Act and the Excise Act and to amend other Acts in consequence thereof.



Chapter 10 (March 26, 1986). Toronto Harbour Commissioners' Act, 1985.

Chapter 11 (March 26, 1986). An Act to amend the Royal Canadian Mounted Police Act and other Acts in consequence thereof.

Chapter 12 (March 26, 1986). An Act to amend the Family Allowances Act, 1973.

Chapter 13 (March 26, 1986). An Act to amend the Immigration Act, 1976.

Chapter 14 (March 26, 1986). An Act to amend the Petroleum Incentives Program Act.

Chapter 15 (March 26, 1986). An Act to amend the Army Benevolent Fund Act, the Children of War Dead (Education Assistance) Act, the Compensation for Former Prisoners of War Act, the Pension Act, the Veterans' Land Act and the War Veterans Allowance Act.

Chapter 16 (March 26, 1986). Public Pensions Reporting Act.

Chapter 17 (March 26, 1986). Appropriation Act No. 4, 1985-86.

Chapter 18 (March 26, 1986). Appropriation Act No. 1, 1986-87.

Chapter 19 (April 23, 1986). Borrowing Authority Act, 1986-87.

Chapter 20 (May 1, 1986). Canadian Arsenal's Limited Divestiture Authorization Act.

Chapter 21 (June 17, 1986). United Nations Foreign Arbitral Awards Convention Act.

Chapter 22 (June 17, 1986). Commercial Arbitration Act.

Chapter 23 (June 17, 1986). Grassy Narrows and Islington Indian Bands Mercury Pollution Claims Settlement Act.

Chapter 24 (June 17, 1986). An Act to amend the Income Tax Act.

Chapter 25 (June 17, 1986). An Act to amend the Canada Deposit Insurance Corporation Act.

Chapter 26 (June 17, 1986). An Act to establish the Competition Tribunal and to amend the Combines Investigation Act and the Bank Act and other Acts in consequence thereof.

Chapter 27 (June 17, 1986). Sechelt Indian Band Self-Government Act.

Chapter 28 (June 17, 1986). Appropriation Act No. 2, 1986-87.

Chapter 29 (June 27, 1986). Duties Relief Act.

Chapter 30 (June 27, 1986). An Act to amend the Currency Act.

Chapter 31 (June 27, 1986). Employment Equity Act.

Chapter 32 (June 27, 1986). An Act to amend the Young Offenders Act, the Criminal Code, the Penitentiary Act and the Prisons and Reformatories Act.

Chapter 33 (June 27, 1986). Farm Debt Review Act.

Chapter 34 (June 27, 1986). An Act to amend the Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act, 1977.

Chapter 35 (June 27, 1986). An Act to amend the Judges Act and other Acts in relation to judicial matters.

Chapter 36 (June 27, 1986). Marine Atlantic Inc. Acquisition Authorization Act.

Chapter 37 (June 27, 1986). An Act to amend the Customs Tariff and to amend An Act to amend the Customs Tariff.

Chapter 38 (June 27, 1986). An Act to amend the Canada Pension Plan and the Federal Court Act.

Chapter 39 (June 27, 1986). Energy Administration Act.

Chapter 40 (June 27, 1986). Pension Benefits Standards Act, 1985.

Chapter 41 (June 27, 1986). Parliamentary Employment and Staff Relations Act.

Chapter 42 (July 24, 1986). An Act to amend the Parole Act and the Penitentiary Act.

Chapter 43 (July 24, 1986). An Act to amend the Parole Act, the Penitentiary Act, the Prisons and Reformatories Act and the Criminal Code.

## **Second session, 33rd Parliament, Session 1986**

Chapter 44 (November 5, 1986). An Act to amend the Income Tax Act.

Chapter 45 (November 18, 1986). Canada Petroleum Resources Act.

Chapter 46 (November 18, 1986). Maintenance of Ports Operations Act, 1986.

Chapter 47 (November 27, 1986). Bank of British Columbia Business Continuation Act.

Chapter 48 (November 27, 1986). An Act to implement conventions between Canada and the Kingdom of the Netherlands and Canada and Japan and agreements between Canada and the People's Republic of China and Canada and the Republic of Malta for the avoidance of double taxation with respect to income tax.

Chapter 49 (December 19, 1986). An Act to amend the Railway Act.

Chapter 50 (December 19, 1986). An Act to amend the Senate and House of Commons Act.

Chapter 51 (December 19, 1986). An Act to amend the Coastal Fisheries Protection Act.

Chapter 52 (December 19, 1986). An Act to amend the Farm Improvement Loans Act.

Chapter 53 (December 19, 1986). An Act to amend the Fisheries Improvement Loans Act.

Chapter 54 (December 19, 1986). An Act to amend the Excise Tax Act and the Excise Act.

Chapter 55 (December 19, 1986). An Act to amend the Income Tax Act and a related Act.

Chapter 56 (December 19, 1986). An Act to amend the Unemployment Insurance Act, 1971.

Chapter 57 (December 19, 1986). Canadair Limited Divestiture Authorization Act.

Chapter 58 (December 19, 1986). An Act to amend the Petroleum and Gas Revenue Tax Act and the Income Tax Act and to repeal the Petroleum and Gas Revenue Tax Act.

Chapter 59 (December 19, 1986). An Act to amend the Immigration Act, 1976.

Chapter 60 (December 19, 1986). An Act to amend the Salaries Act.

Chapter 61 (December 19, 1986). Appropriation Act No. 3, 1986-87.

Chapter 62 (December 19, 1986). Appropriation Act No. 4, 1986-87.

#### **Second session, 33rd Parliament, Session 1987**

Chapter 1 (March 25, 1987). National Archives of Canada Act.

Chapter 2 (March 25, 1987). An Act to amend the Prairie Grain Advance Payments Act.

Chapter 3 (March 25, 1987). Canada-Newfoundland Atlantic Accord Implementation Act.

Chapter 4 (March 25, 1987). An Act to amend the Radio Act.

Chapter 5 (March 25, 1987). Borrowing Authority Act, 1986-87 (No. 2).

Chapter 6 (March 25, 1987). Appropriation Act No. 5, 1986-87.

Chapter 7 (March 26, 1987). An Act to amend the Canada Shipping Act and to amend the Arctic Waters Pollution Prevention Act, the Maritime Code Act and the Oil and Gas Production and Conservation Act in consequence thereof.

Chapter 8 (March 26, 1987). An Act to amend the Territorial Lands Act.

Chapter 9 (March 26, 1987). Northern Canada Power Commission Yukon Assets Disposal Authorization Act.

Chapter 10 (March 26, 1987). Appropriation Act No. 1, 1987-88.

Chapter 11 (March 31, 1987). Appropriation Act No. 2, 1987-88.

Chapter 12 (April 1, 1987). Teleglobe Canada Reorganization and Divestiture Act.

Chapter 13 (April 14, 1987). An Act to amend the Criminal Code (torture).

Chapter 14 (April 14, 1987). An Act to amend the Federal-Provincial Fiscal Arrangements and Federal Post-Secondary Education and Health Contributions Act, 1977.

## APPENDIX C

# POLITICAL UPDATE

To supplement the information in Chapter 19, Government, the following lists give the names of the Cabinet Ministers of Canada in January 1987, June 1986, August 1985 and September 1984, the Senate, members of the Privy Council and the executive councils of the provinces and territories. Data on members of the House of Commons voted into office in federal general elections are given in Chapter 19, Table 19.4.

### Cabinet ministers

**Members of the 24th ministry.** In January 1987 the following were Ministers of the federal Cabinet, according to precedence:

The Rt. Hon. Martin Brian Mulroney  
Prime Minister

The Hon. George Harris Hees  
Minister of Veterans Affairs

The Rt. Hon. Charles Joseph (Joe) Clark  
Secretary of State for External Affairs

The Hon. Flora Isabel MacDonald  
Minister of Communications

The Hon. John Carnell Crosbie  
Minister of Transport

The Hon. Roch LaSalle  
Minister of State

The Hon. Donald Frank Mazankowski  
Deputy Prime Minister and President of the  
Queen's Privy Council for Canada

The Hon. Elmer MacIntosh MacKay  
Minister of National Revenue

The Hon. Arthur Jacob (Jake) Epp  
Minister of National Health and Welfare

The Hon. John Wise  
Minister of Agriculture

The Hon. Ramon (Ray) John Hnatyshyn  
Minister of Justice and Attorney General  
of Canada

The Hon. David Edward Crombie  
Secretary of State of Canada

The Hon. Robert René de Cotret  
President of the Treasury Board

The Hon. Henry Perrin Beatty  
Minister of National Defence

The Hon. Michael Holcombe Wilson  
Minister of Finance

The Hon. Harvie Andre  
Minister of Consumer and Corporate Affairs

The Hon. Otto John Jelinek  
Minister of State (Fitness and Amateur Sport)

The Hon. Thomas Edward Siddon  
Minister of Fisheries and Oceans

The Hon. Charles James Mayer  
Minister of State (Canadian Wheat Board)

The Hon. William Hunter McKnight  
Minister of Indian Affairs and Northern  
Development

The Hon. Thomas Michael McMillan  
Minister of the Environment

The Hon. Patricia Carney  
Minister for International Trade

The Hon. Benoît Bouchard  
Minister of Employment and Immigration

The Hon. Michel Côté  
Minister of Regional Industrial Expansion

The Hon. James Francis Kelleher  
Solicitor General of Canada

The Hon. Marcel Masse  
Minister of Energy, Mines and Resources

The Hon. Barbara Jean McDougall  
Minister of State (Privatization)

The Hon. Gerald S. Merrithew  
Minister of State (Forestry and Mines)

The Hon. Monique Vézina  
Minister of Supply and Services

The Hon. Stewart McInnes  
Minister of Public Works

The Hon. Frank Oberle  
Minister of State for Science and Technology

The Hon. Lowell Murray  
Leader of the Government in the Senate and  
Minister of State (Federal-Provincial Relations)

The Hon. Paul Wyatt Dick  
Associate Minister of National Defence

The Hon. Pierre H. Cadieux  
Minister of Labour

The Hon. Jean J. Charest  
Minister of State (Youth)

The Hon. Thomas Hockin  
Minister of State (Finance)

The Hon. Monique Landry  
Minister for External Relations

The Hon. Bernard Valcourt  
Minister of State (Small Businesses and Tourism)

The Hon. Gerry Weiner  
Minister of State (Immigration)

In June 1986 the following were Ministers of the federal Cabinet, according to precedence:

The Rt. Hon. Martin Brian Mulroney  
Prime Minister

The Hon. George Harris Hees  
Minister of Veterans Affairs

The Rt. Hon. Charles Joseph (Joe) Clark  
Secretary of State for External Affairs

The Hon. Flora Isabel MacDonald  
Minister of Communications

The Hon. John Carnell Crosbie  
Minister of Transport

The Hon. Roch LaSalle  
Minister of State

The Hon. Donald Frank Mazankowski  
Deputy Prime Minister, President of the Queen's Privy Council for Canada, and Government House Leader

The Hon. Elmer MacIntosh MacKay  
Minister of National Revenue

The Hon. Arthur Jacob (Jake) Epp  
Minister of National Health and Welfare

The Hon. John Wise  
Minister of Agriculture

The Hon. Ramon (Ray) John Hnatyshyn  
Minister of Justice and Attorney General of Canada

The Hon. David Edward Crombie  
Secretary of State and Minister Responsible for Multiculturalism

The Hon. Robert René de Cotret  
President of the Treasury Board

The Hon. Henry Perrin Beatty  
Minister of National Defence

The Hon. Michael Holcombe Wilson  
Minister of Finance

The Hon. Harvie Andre  
Minister of Consumer and Corporate Affairs

The Hon. Otto John Jelinek  
Minister of State (Fitness and Amateur Sport)

The Hon. Thomas Edward Siddon  
Minister of Fisheries and Oceans

The Hon. Charles James Mayer  
Minister of State (Canadian Wheat Board)

The Hon. William Hunter McKnight  
Minister of Indian Affairs and Northern Development

The Hon. Thomas Michael McMillan  
Minister of the Environment

The Hon. Patricia Carney  
Minister for International Trade

The Hon. André Bissonnette  
Minister of State (Transport)

The Hon. Benoît Bouchard  
Minister of Employment and Immigration

The Hon. Michel Côté  
Minister of Regional Industrial Expansion

The Hon. James Francis Kelleher  
Solicitor General of Canada

The Hon. Marcel Masse  
Minister of Energy, Mines and Resources

The Hon. Barbara Jean McDougall  
Minister of State (Privatization) and Minister Responsible for the Status of Women

The Hon. Gerald S. Merrithew  
Minister of State (Forestry and Mines)

The Hon. Monique Vézina  
Minister of Supply and Services

The Hon. Stewart McInnes  
Minister of Public Works

The Hon. Frank Oberle  
Minister of State for Science and Technology

The Hon. Lowell Murray  
Leader of the Government in the Senate and Minister of State (Federal-Provincial Relations)

The Hon. Paul Wyatt Dick  
Associate Minister of National Defence

The Hon. Pierre Cadieux  
Minister of Labour

The Hon. Jean Charest  
Minister of State (Youth)

The Hon. Thomas Hockin  
Minister of State (Finance)

The Hon. Monique Landry  
Minister for External Relations

The Hon. Bernard Valcourt  
Minister of State (Small Businesses and Tourism)

The Hon. Gerry Weiner  
Minister of State (Immigration)

In August 1985 the following were Ministers of the federal Cabinet, according to precedence:

The Rt. Hon. Martin Brian Mulroney  
Prime Minister

The Hon. George Harris Hees  
Minister of Veterans Affairs

The Hon. Dufferin (Duff) Roblin  
Leader of the Government in the Senate



The Rt. Hon. Charles Joseph (Joe) Clark  
Secretary of State for External Affairs

The Hon. Flora Isabel MacDonald  
Minister of Employment and Immigration

The Hon. Erik H. Nielsen  
Deputy Prime Minister and Minister of National Defence

The Hon. John Carnell Crosbie  
Minister of Justice and Attorney General of Canada

The Hon. Roch LaSalle  
Minister of Public Works

The Hon. Donald Frank Mazankowski  
Minister of Transport

The Hon. Elmer MacIntosh MacKay  
Minister of National Revenue

The Hon. Arthur Jacob (Jake) Epp  
Minister of National Health and Welfare

The Hon. John Allen Fraser  
Minister of Fisheries and Oceans

The Hon. Sinclair McKnight Stevens  
Minister of Regional Industrial Expansion

The Hon. John Wise  
Minister of Agriculture

The Hon. Ramon (Ray) John Hnatyshyn  
President of the Queen's Privy Council for Canada

The Hon. David Edward Crombie  
Minister of Indian Affairs and Northern Development

The Hon. Robert René de Cotret  
President of the Treasury Board

The Hon. Henry Perrin Beatty  
Solicitor General of Canada

The Hon. Michael Holcombe Wilson  
Minister of Finance

The Hon. Jack Burnett Murta  
Minister of State (Tourism)

The Hon. Harvie Andre  
Associate Minister of National Defence

The Hon. Otto John Jelinek  
Minister of State (Fitness and Amateur Sport) and Minister of State (Multiculturalism)

The Hon. Thomas Edward Siddon  
Minister of State for Science and Technology

The Hon. Charles James Mayer  
Minister of State (Canadian Wheat Board)

The Hon. William Hunter McKnight  
Minister of Labour

The Hon. Walter Franklin McLean  
Minister of State (Immigration) and Minister Responsible for the Status of Women

The Hon. Thomas Michael McMillan  
Minister of the Environment

The Hon. Patricia Carney  
Minister of Energy, Mines and Resources

The Hon. André Bissonnette  
Minister of State (Small Businesses)

The Hon. Suzanne Blais-Grenier  
Minister of State (Transport)

The Hon. Benoît Bouchard  
Secretary of State of Canada

The Hon. Andrée Champagne  
Minister of State (Youth)

The Hon. Michel Côté  
Minister of Consumer and Corporate Affairs

The Hon. James Francis Kelleher  
Minister for International Trade

The Hon. Robert E. Layton  
Minister of State (Mines)

The Hon. Marcel Masse  
Minister of Communications

The Hon. Barbara Jean McDougall  
Minister of State (Finance)

The Hon. Gerald S. Merrithew  
Minister of State (Forestry)

The Hon. Monique Vézina  
Minister for External Relations

The Hon. Stewart Donald McInnes  
Minister of Supply and Services

In September 1984 the following were Ministers of the federal Cabinet, according to precedence:

The Rt. Hon. Martin Brian Mulroney  
Prime Minister

The Hon. George Harris Hees  
Minister of Veterans Affairs

The Hon. Dufferin (Duff) Roblin  
Leader of the Government in the Senate

The Rt. Hon. Charles Joseph (Joe) Clark  
Secretary of State for External Affairs

The Hon. Flora Isabel MacDonald  
Minister of Employment and Immigration

The Hon. Erik H. Nielsen  
Deputy Prime Minister and President of the Queen's Privy Council for Canada

The Hon. John Carnell Crosbie  
Minister of Justice and Attorney General of Canada

The Hon. Roch LaSalle  
Minister of Public Works

The Hon. Donald Frank Mazankowski  
Minister of Transport

The Hon. Elmer MacIntosh MacKay  
Solicitor General of Canada

The Hon. Arthur Jacob (Jake) Epp  
Minister of National Health and Welfare

The Hon. John Allen Fraser  
Minister of Fisheries and Oceans

The Hon. Sinclair McKnight Stevens  
Minister of Regional Industrial Expansion

The Hon. John Wise  
Minister of Agriculture

The Hon. Ramon (Ray) John Hnatyshyn  
Minister of State (Government House Leader)

The Hon. David Edward Crombie  
Minister of Indian Affairs and Northern Development

The Hon. Robert René de Cotret  
President of the Treasury Board

The Hon. Henry Perrin Beatty  
Minister of National Revenue

The Hon. Michael Holcombe Wilson  
Minister of Finance

The Hon. Robert Carman Coates  
Minister of National Defence

The Hon. Jack Burnett Murta  
Minister of State (Multiculturalism)

The Hon. Harvie Andre  
Minister of Supply and Services

The Hon. Otto John Jelinek  
Minister of State (Fitness and Amateur Sport)

The Hon. Thomas Edward Siddon  
Minister of State for Science and Technology

The Hon. Charles James Mayer  
Minister of State (Canadian Wheat Board)

The Hon. William Hunter McKnight  
Minister of Labour

The Hon. Walter Franklin McLean  
Secretary of State of Canada

The Hon. Thomas Michael McMillan  
Minister of State (Tourism)

The Hon. Patricia Carney  
Minister of Energy, Mines and Resources

The Hon. André Bissonnette  
Minister of State (Small Businesses)

The Hon. Suzanne Blais-Grenier  
Minister of the Environment

The Hon. Benoît Bouchard  
Minister of State (Transport)

The Hon. Andrée Champagne  
Minister of State (Youth)

The Hon. Michel Côté  
Minister of Consumer and Corporate Affairs

The Hon. James Francis Kelleher  
Minister for International Trade

The Hon. Robert E. Layton  
Minister of State (Mines)

The Hon. Marcel Masse  
Minister of Communications

The Hon. Barbara Jean McDougall  
Minister of State (Finance)

The Hon. Gerald S. Merrithew  
Minister of State (Forestry)

The Hon. Monique Vézina  
Minister for External Relations

## The Senate

In January 1987 the representation in the Senate was as follows, listed geographically from East to West by province, followed by territories, and in each grouping chronologically by appointment:

### Newfoundland

The Hon. William John Petten  
The Hon. Frederick William Rowe  
The Hon. Philip Derek Lewis  
The Hon. Jack Marshall  
The Hon. C. William Doody  
The Hon. Ethel Cochrane

### Prince Edward Island

The Hon. Orville Howard Phillips  
The Hon. Mark Lorne Bonnell  
The Hon. Heath Nelson Macquarrie  
The Hon. Eileen Rossiter

### Nova Scotia

The Hon. John Michael Macdonald  
The Hon. Henry D. Hicks  
The Hon. Bernard Alasdair Graham  
The Hon. Augustus Irvine Barrow  
The Hon. Ernest George Cottreau  
The Hon. Robert Muir  
The Hon. John B. Stewart  
The Hon. Michael Kirby  
The Hon. Allan Joseph MacEachen  
The Hon. Finlay MacDonald

### New Brunswick

The Hon. Fred A. McGrand  
The Hon. Charles Robert McElman  
The Hon. Louis-J. Robichaud  
The Hon. Margaret Jean Anderson  
The Hon. L. Norbert Thériault  
The Hon. Cyril B. Sherwood  
The Hon. Roméo LeBlanc  
The Hon. Eymard Corbin  
The Hon. Brenda Mary Robertson  
The Hon. Jean-Maurice Simard

### Quebec

The Hon. Hartland de Montarville Molson  
The Hon. Jacques Flynn  
The Hon. Azellus Denis  
The Hon. J.G. Léopold Langlois  
The Hon. Paul C. Lafond  
The Hon. Martial Asselin  
The Hon. Maurice Riel  
The Hon. Pietro Rizzuto  
The Hon. Dalia Wood  
The Hon. Fernand-E. Leblanc

The Hon. Yvette Boucher Rousseau  
 The Hon. Guy Charbonneau (Speaker)  
 The Hon. Arthur Tremblay  
 The Hon. Jean LeMoyne  
 The Hon. Jacques Hébert  
 The Hon. Leo E. Kolber  
 The Hon. Philippe Deane Gigantès  
 The Hon. Charles Watt  
 The Hon. Pierre De Bané  
 The Hon. Tom Lefebvre  
 The Hon. Paul P. David  
 The Hon. Michel Cogger  
 The Hon. Jean Bazin  
 1 vacancy

## Ontario

The Hon. David A. Croll  
 The Hon. David James Walker  
 The Hon. Rhéal Bélisle  
 The Hon. Daniel Aiken Lang  
 The Hon. Douglas Keith Davey  
 The Hon. Andrew Ernest Thompson  
 The Hon. Richard James Stanbury  
 The Hon. Joan Neiman  
 The Hon. John Morrow Godfrey  
 The Hon. Royce Frith  
 The Hon. Peter Bosa  
 The Hon. Stanley Haidasz  
 The Hon. Lowell Murray  
 The Hon. Peter Alan Stollery  
 The Hon. Peter Michael Pitfield  
 The Hon. William McDonough Kelly  
 The Hon. Ian Sinclair  
 The Hon. Jeremiah S. Grafstein  
 The Hon. Anne C. Cools  
 The Hon. Lorna Marsden  
 The Hon. Colin Kenny  
 The Hon. Charles Turner  
 The Hon. Richard J. Doyle  
 The Hon. Norman K. Atkins

## Manitoba

The Hon. Douglas Donald Everett  
 The Hon. Gildas L. Molgat  
 The Hon. Dufferin (Duff) Roblin  
 The Hon. Joseph-Philippe Guay  
 The Hon. Nathan Nurgitz  
 The Hon. Mira Spivak

## Saskatchewan

The Hon. Hazen Robert Argue  
 The Hon. Herbert O. Sparrow  
 The Hon. Sidney L. Buckwold  
 The Hon. David Gordon Steuart  
 The Hon. Reginald James Balfour  
 The Hon. E.W. (Staff) Barootes

## Alberta

The Hon. Donald Cameron  
 The Hon. Earl Adam Hastings  
 The Hon. Horace Andrew (Bud) Olson  
 The Hon. Martha P. Bielish

The Hon. Daniel Hays  
 The Hon. Joyce Fairbairn

## British Columbia

The Hon. Ann Elizabeth Bell  
 The Hon. Edward M. Lawson  
 The Hon. George Clifford van Roggen  
 The Hon. Raymond Joseph Perrault  
 The Hon. Jacob (Jack) Austin  
 The Hon. Leonard Stephen Marchand

## Yukon

The Hon. Paul Lucier

## Northwest Territories

The Hon. Willie Adams

## The Queen's Privy Council for Canada

The following, with the dates when they were sworn in, were members of the Queen's Privy Council for Canada in January 1987:

The Hon. Lionel Chevrier, April 18, 1945  
 The Hon. Paul Joseph James Martin, April 18, 1945  
 The Hon. Douglas Charles Abbott, April 18, 1945  
 The Hon. Gabriel-Edouard Rinfret, August 25, 1949  
 The Hon. Walter Edward Harris, January 18, 1950  
 The Hon. John Whitney Pickersgill, June 12, 1953  
 The Hon. Paul Theodore Hellyer, April 26, 1957  
 The Hon. Howard Charles Green, June 21, 1957  
 The Hon. George Harris Hees, June 21, 1957  
 The Hon. Léon Balcer, June 21, 1957  
 The Hon. Edmund Davie Fulton, June 21, 1957  
 The Hon. Douglas Scott Harkness, June 21, 1957  
 The Hon. Ellen Louks Fairclough, June 21, 1957  
 The Hon. John Angus MacLean, June 21, 1957  
 The Hon. Michael Starr, June 21, 1957  
 The Hon. William McLean Hamilton, June 21, 1957  
 The Hon. William Joseph Browne, June 21, 1957  
 The Hon. Francis Alvin George Hamilton, August 22, 1957  
 HRH The Prince Philip, Duke of Edinburgh, October 14, 1957  
 The Hon. David James Walker, August 20, 1959  
 The Hon. Joseph-Pierre-Albert Sévigny, August 20, 1959  
 The Hon. Jacques Flynn, December 28, 1961  
 The Hon. Paul Martineau, August 9, 1962  
 The Hon. Richard Albert Bell, August 9, 1962  
 The Rt. Hon. Roland Michener, October 15, 1962  
 The Hon. Marcel-Joseph-Aimé Lambert, February 12, 1963  
 The Hon. Théogène Ricard, March 18, 1963  
 The Hon. Frank Charles McGee, March 18, 1963  
 The Hon. Martial Asselin, March 18, 1963  
 The Hon. Walter Lockhart Gordon, April 22, 1963  
 The Hon. Mitchell William Sharp, April 22, 1963  
 The Hon. Azellus Denis, April 22, 1963  
 The Hon. George James McIlraith, April 22, 1963  
 The Hon. Lucien Cardin, April 22, 1963  
 The Hon. Allan Joseph MacEachen, April 22, 1963

- The Hon. Hédard Robichaud, April 22, 1963  
 The Hon. Roger Teillet, April 22, 1963  
 The Hon. Charles Mills Drury, April 22, 1963  
 The Hon. Maurice Sauvé, February 3, 1964  
 The Hon. Yvon Dupuis, February 3, 1964  
 The Hon. Edgar John Benson, June 29, 1964  
 The Hon. Léo Alphonse Joseph Cadieux,  
     February 15, 1965  
 The Hon. Lawrence T. Pennell, July 7, 1965  
 The Hon. Jean-Luc Pepin, July 7, 1965  
 The Hon. Alan Aylesworth Macnaughton,  
     October 25, 1965  
 The Hon. Jean Marchand, December 18, 1965  
 The Hon. Joseph Julien Jean-Pierre Côté,  
     December 18, 1965  
 The Rt. Hon. John Napier Turner, December 18, 1965  
 The Rt. Hon. Pierre Elliott Trudeau, April 4, 1967  
 The Hon. Joseph-Jacques-Jean Chrétien, April 4, 1967  
 The Hon. Pauline Vanier, April 11, 1967  
 The Hon. Louis-J. Robichaud, July 5, 1967  
 The Hon. Dufferin (Duff) Roblin, July 5, 1967  
 The Hon. Alexander B. Campbell, July 5, 1967  
 The Hon. Ernest Charles Manning, July 5, 1967  
 The Hon. Joseph Robert Smallwood, July 5, 1967  
 The Hon. Robert L. Stanfield, July 7, 1967  
 The Hon. Charles Ronald McKay Granger,  
     September 25, 1967  
 The Hon. Bryce Stuart Mackasey, February 9, 1968  
 The Hon. Donald Stovel Macdonald, April 20, 1968  
 The Hon. John Carr Munro, April 20, 1968  
 The Hon. Gérard Pelletier, April 20, 1968  
 The Hon. Jack Davis, April 26, 1968  
 The Hon. Horace Andrew (Bud) Olson, July 6, 1968  
 The Hon. Jean-Eudes Dubé, July 6, 1968  
 The Hon. Stanley Ronald Basford, July 6, 1968  
 The Hon. Eric William Kierans, July 6, 1968  
 The Hon. James Armstrong Richardson, July 6, 1968  
 The Hon. Otto Emil Lang, July 6, 1968  
 The Hon. Herbert Eser Gray, October 20, 1969  
 The Hon. Robert Douglas George Stanbury,  
     October 20, 1969  
 The Hon. Jean-Pierre Goyer, December 22, 1970  
 The Hon. Alastair William Gillespie, August 12, 1971  
 The Hon. Martin Patrick O'Connell, August 12, 1971  
 The Hon. Patrick Morgan Mahoney, January 28, 1972  
 The Hon. Stanley Haidasz, November 27, 1972  
 The Hon. Eugene Francis Whelan, November 27, 1972  
 The Hon. W. Warren Allmand, November 27, 1972  
 The Hon. James Hugh Faulkner, November 27, 1972  
 The Hon. André Ouellet, November 27, 1972  
 The Hon. Marc Lalonde, November 27, 1972  
 The Rt. Hon. Jeanne Sauvé, November 27, 1972  
 The Hon. Lucien Lamoureux, June 10, 1974  
 The Hon. Raymond Joseph Perrault, August 8, 1974  
 The Hon. Barnett Jerome Danson, August 8, 1974  
 The Hon. J. Judd Buchanan, August 8, 1974  
 The Hon. Roméo LeBlanc, August 8, 1974  
 The Hon. Muriel McQueen Fergusson,  
     November 7, 1974  
 The Hon. Pierre Juneau, August 29, 1975  
 The Hon. Marcel Lessard, September 26, 1975  
 The Hon. Jack Sydney George Cullen,  
     September 26, 1975  
 The Hon. Leonard Stephen Marchand,  
     September 15, 1976  
 The Hon. John Roberts, September 15, 1976  
 The Hon. Monique Bégin, September 15, 1976  
 The Hon. Jean-Jacques Blais, September 15, 1976  
 The Hon. Francis Fox, September 15, 1976  
 The Hon. Anthony Chisholm Abbott,  
     September 15, 1976  
 The Hon. Iona Campagnolo, September 15, 1976  
 The Hon. Joseph-Philippe Guay, November 3, 1976  
 The Hon. John Henry Horner, April 21, 1977  
 The Hon. Norman A. Cafik, September 16, 1977  
 The Hon. J. Gilles Lamontagne, January 19, 1978  
 The Hon. John M. Reid, November 24, 1978  
 The Hon. Pierre De Bané, November 24, 1978  
 The Rt. Hon. Charles Joseph (Joe) Clark, June 4, 1979  
 The Hon. Flora Isabel MacDonald, June 4, 1979  
 The Hon. James A. McGrath, June 4, 1979  
 The Hon. Erik H. Nielsen, June 4, 1979  
 The Hon. Allan Frederick Lawrence, June 4, 1979  
 The Hon. John Carnell Crosbie, June 4, 1979  
 The Hon. David S.H. MacDonald, June 4, 1979  
 The Hon. Lincoln Alexander, June 4, 1979  
 The Hon. Roch LaSalle, June 4, 1979  
 The Hon. Donald Frank Mazankowski, June 4, 1979  
 The Hon. Elmer MacIntosh MacKay, June 4, 1979  
 The Hon. Arthur Jacob (Jake) Epp, June 4, 1979  
 The Hon. John Allen Fraser, June 4, 1979  
 The Hon. William Jarvis, June 4, 1979  
 The Hon. Allan McKinnon, June 4, 1979  
 The Hon. Sinclair McKnight Stevens, June 4, 1979  
 The Hon. John Wise, June 4, 1979  
 The Hon. Ronald George Atkey, June 4, 1979  
 The Hon. Ramon (Ray) John Hnatyshyn, June 4, 1979  
 The Hon. David Edward Crombie, June 4, 1979  
 The Hon. Robert René de Cotret, June 4, 1979  
 The Hon. William Heward Grafftey, June 4, 1979  
 The Hon. Henry Perrin Beatty, June 4, 1979  
 The Hon. J. Robert Howie, June 4, 1979  
 The Hon. Steven Eugene Paproski, June 4, 1979  
 The Hon. Ronald Huntington, June 4, 1979  
 The Hon. Michael Holcombe Wilson, June 4, 1979  
 The Hon. Renaude Lapointe, November 30, 1979  
 The Hon. Stanley Howard Knowles, November 30, 1979  
 The Hon. Hazen Robert Argue, March 3, 1980  
 The Hon. Gerald Regan, March 3, 1980  
 The Hon. Mark MacGuigan, March 3, 1980  
 The Hon. Robert Phillip Kaplan, March 3, 1980  
 The Hon. James Sydney Fleming, March 3, 1980  
 The Hon. William Rompkey, March 3, 1980  
 The Hon. Pierre Bussièrès, March 3, 1980  
 The Hon. Charles Lapointe, March 3, 1980  
 The Hon. Edward Lumley, March 3, 1980  
 The Hon. Yvon Pinard, March 3, 1980  
 The Hon. Donald J. Johnston, March 3, 1980  
 The Hon. Lloyd Axworthy, March 3, 1980  
 The Hon. Paul Cosgrove, March 3, 1980  
 The Hon. Judy Erola, March 3, 1980  
 The Hon. James A. Jerome, February 16, 1981  
 The Hon. Jacob (Jack) Austin, September 22, 1981  
 The Hon. Charles L. Caccia, September 22, 1981  
 The Hon. Serge Joyal, September 22, 1981



The Hon. W. Bennett Campbell, September 22, 1981  
 The Hon. Robert Gordon Robertson, March 2, 1982  
 The Hon. John Edward Broadbent, April 17, 1982  
 The Hon. Richard Bennett Hatfield, April 17, 1982  
 The Hon. William Grenville Davis, April 17, 1982  
 The Hon. Allan Emrys Blakeney, April 17, 1982  
 The Hon. E. Peter Lougheed, April 17, 1982  
 The Hon. William Richards Bennett, April 17, 1982  
 The Hon. John MacLellan Buchanan, April 17, 1982  
 The Hon. Alfred Brian Peckford, April 17, 1982  
 The Hon. James Matthew Lee, April 17, 1982  
 The Hon. Howard Russell Pawley, April 17, 1982  
 The Hon. Sterling Rufus Lyon, April 17, 1982  
 The Hon. David Michael Collette, August 12, 1983  
 The Hon. Céline Hervieux-Payette, August 12, 1983  
 The Hon. Roger Simmons, August 12, 1983  
 The Hon. David Paul Smith, August 12, 1983  
 The Hon. Roy MacLaren, August 17, 1983  
 The Hon. Jacques Olivier, January 10, 1984  
 The Rt. Hon. Brian Dickson, April 19, 1984  
 The Hon. Robert B. Bryce, April 19, 1984  
 The Hon. Peter Michael Pitfield, April 19, 1984  
 The Rt. Hon. Martin Brian Mulroney, May 7, 1984  
 The Rt. Hon. Edward Richard Schreyer, June 3, 1984  
 The Hon. Herbert Breau, June 30, 1984  
 The Hon. Joseph Roger Rémi Bujold, June 30, 1984  
 The Hon. Jean-C. Lapierre, June 30, 1984  
 The Hon. Ralph Ferguson, June 30, 1984  
 The Hon. Douglas Cockburn Frith, June 30, 1984  
 The Hon. Robert Carman Coates, September 17, 1984  
 The Hon. Jack Burnett Murta, September 17, 1984  
 The Hon. Harvie Andre, September 17, 1984  
 The Hon. Otto John Jelinek, September 17, 1984  
 The Hon. Thomas Edward Siddon, September 17, 1984  
 The Hon. Charles James Mayer, September 17, 1984  
 The Hon. William Hunter McKnight,  
     September 17, 1984  
 The Hon. Walter Franklin McLean, September 17, 1984  
 The Hon. Thomas Michael McMillan,  
     September 17, 1984  
 The Hon. Patricia Carney, September 17, 1984  
 The Hon. André Bissonnette, September 17, 1984  
 The Hon. Suzanne Blais-Grenier, September 17, 1984  
 The Hon. Benoît Bouchard, September 17, 1984  
 The Hon. Andrée Champagne, September 17, 1984  
 The Hon. Michel Côté, September 17, 1984  
 The Hon. James Francis Kelleher, September 17, 1984  
 The Hon. Robert E. Layton, September 17, 1984  
 The Hon. Marcel Masse, September 17, 1984  
 The Hon. Barbara Jean McDougall, September 17, 1984  
 The Hon. Gerald S. Merrithew, September 17, 1984  
 The Hon. Monique Vézina, September 17, 1984  
 The Hon. Maurice Riel, November 30, 1984  
 The Hon. Cyril Lloyd Francis, November 30, 1984  
 The Hon. Saul Mark Cherniack, November 30, 1984  
 The Hon. Paule Gauthier, November 30, 1984  
 The Hon. Eugene Alfred Forsey, June 10, 1985  
 The Hon. Lloyd Roseville Crouse, June 10, 1985  
 The Hon. Stewart McInnes, August 20, 1985  
 The Hon. Frank Oberle, November 20, 1985  
 The Hon. Gordon Francis Joseph Osbaldeston,  
     February 13, 1986

The Hon. Lowell Murray, June 30, 1986  
 The Hon. Paul Wyatt Dick, June 30, 1986  
 The Hon. Pierre H. Cadieux, June 30, 1986  
 The Hon. Jean J. Charest, June 30, 1986  
 The Hon. Thomas Hockin, June 30, 1986  
 The Hon. Monique Landry, June 30, 1986  
 The Hon. Bernard Valcourt, June 30, 1986  
 The Hon. Gerry Weiner, June 30, 1986

## Provincial governments

The following were the executive councils of the provinces, from East to West across Canada, and the territories in June 1987.

### Newfoundland

The Hon. Alfred Brian Peckford  
     Premier and Minister of Intergovernmental  
     Affairs  
 The Hon. Dr. John Collins  
     Minister of Finance  
 The Hon. Gerald Ottenheimer, QC  
     President of the Council and Minister of Energy  
 The Hon. Neil Windsor  
     President of Treasury Board  
 The Hon. Jerome W. Dinn  
     Minister of Mines and Minister Responsible for  
     Nfld. and Labrador Housing Corporation  
 The Hon. Charles J. Power  
     Minister of Career Development and Advanced  
     Studies  
 The Hon. D. Haig Young  
     Minister of Public Works and Services  
 The Hon. Lynn Verge  
     Minister of Justice and Attorney General  
 The Hon. Ronald G. Dawe  
     Minister of Transportation  
 The Hon. Leonard A. Simms  
     Minister of Forest Resources and Lands  
 The Hon. Norman E. Doyle  
     Minister of Municipal Affairs  
 The Hon. Thomas G. Rideout  
     Minister of Fisheries  
 The Hon. Dr. Hugh M. Twomey  
     Minister of Health  
 The Hon. Robert J. Aylward  
     Minister of Rural, Agriculture and Northern  
     Development  
 The Hon. R. Charles Brett  
     Minister of Social Services  
 The Hon. James M. Russell  
     Minister of Consumer Affairs  
 The Hon. Harold M. Barrett  
     Minister of Development and Tourism  
 The Hon. John C. Butt  
     Minister of Environment

The Hon. W. Loyola Hearn  
Minister of Education

The Hon. William B. Matthews  
Minister of Culture, Recreation and Youth

The Hon. T.A. Blanchard  
Minister of Labour

### **Prince Edward Island**

The Hon. Joseph A. Ghiz, QC  
Premier and President of the Executive Council

The Hon. Gilbert R. Clements  
Minister of Finance, and Minister of Community  
and Cultural Affairs

The Hon. Allison Ellis  
Minister of Energy and Forestry

The Hon. Leonce Bernard  
Minister of Industry

The Hon. Ross (Johnny) Young  
Minister of Fisheries

The Hon. Robert Morrissey  
Minister of Transportation and Public Works

The Hon. Betty Jean Brown  
Minister of Education

The Hon. Tim Carroll  
Minister of Agriculture

The Hon. Wayne D. Cheverie, QC  
Minister of Justice, Attorney General, and Min-  
ister of Labour

The Hon. Gordon MacInnis  
Minister of Tourism and Parks

The Hon. Keith Milligan  
Minister of Health and Social Services

### **Nova Scotia**

The Hon. John MacLellan Buchanan, PC, QC  
Premier, President of Executive Council and  
Minister of Intergovernmental Affairs

The Hon. Roland J. Thornhill  
Minister of Development and Minister in charge  
of Administration of the Research Foundation  
Corporation Act

The Hon. Roger S. Bacon  
Minister of Agriculture and Marketing

The Hon. John MacIsaac  
Minister of Tourism

The Hon. Kenneth Streach  
Minister of Lands and Forests

The Hon. Ronald C. Giffin, QC  
Chairman of the Policy Board and Minister of  
Vocational and Technical Training

The Hon. Terence R.B. Donahoe, QC  
Attorney General, Provincial Secretary and  
Minister in charge of Administration of the  
Regulations Act

The Hon. Thomas J. McInnis  
Minister of Education

The Hon. Joel R. Matheson, QC  
Minister of Mines and Energy

The Hon. Laird Stirling  
Minister of the Environment and Minister in  
charge of Administration of the Human Rights Act

The Hon. Edmund L. Morris  
Minister of Social Services

The Hon. Ronald S. Russell  
Minister of Health, Minister in charge of Admin-  
istration of the Drug Dependency Act and  
Registrar General

The Hon. Greg Kerr  
Minister of Finance and Minister in charge of  
Administration of the Lottery Act

The Hon. Michael A. Laffin, DDS  
Minister of Government Services and Minister in  
charge of Administration of the Communications  
and Information Act

The Hon. John G. Leefe  
Minister of Fisheries

The Hon. George C. Moody  
Chairman of the Management Board, Minister in  
charge of Administration of the Civil Service Act,  
Minister in charge of Administration of the  
Liquor Control Act

The Hon. Milne C. Pickings  
Minister of Housing and Minister in charge of  
Administration of the EMO (NS) Act and  
Regulations

The Hon. G. David Nantes  
Minister of Municipal Affairs

The Hon. Maxine Cochran  
Minister of Consumer Affairs, Minister of  
Culture, Recreation and Fitness, Minister in  
charge of Administration of the Residential  
Tenancies Act, and Minister in charge of Admin-  
istration of the Heritage Property Act

The Hon. Guy J. LeBlanc  
Minister of Transportation

The Hon. Brian A. Young  
Minister of Labour and Minister in charge of  
Administration of the Advisory Council on the  
Status of Women Act

### **New Brunswick**

The Hon. Richard Bennett Hatfield  
Premier

The Hon. Wilfred G. Bishop  
President of the Executive Council

The Hon. David Clark, QC  
Attorney General and Minister of Justice

The Hon. John B. M. Baxter, QC  
Minister of Finance

The Hon. Yvon R. Poitras  
Chairman of the Board of Management

The Hon. C. William Harmer  
Minister of Supply and Services

The Hon. Robert McCreedy  
Minister of Transportation

The Hon. Malcolm N. MacLeod  
Minister of Natural Resources and Energy

The Hon. Hazen Myers  
Minister of Agriculture

The Hon. Nancy Clark Teed  
Minister of Health and Community Services

The Hon. Paul W. Dawson  
Minister of Income Assistance

The Hon. Joseph W. Mombourquette  
Minister of Labour

The Hon. Jean-Pierre Ouellet  
Minister of Education

The Hon. Mabel M. DeWare  
Minister of Advance Education and Training

The Hon. Robert Jackson  
Minister of Municipal Affairs and Environment

The Hon. Fernand G. Dubé, QC  
Minister of Commerce and Technology

The Hon. James Tucker  
Minister of Fisheries

The Hon. Omer A. Leger  
Minister of Tourism, Recreation and Heritage

The Hon. Jean Gauvin  
Minister of New Brunswick Housing Corporation

The Hon. Leslie I. Hull  
Chairman of New Brunswick Electric Power Commission

## Quebec

The Hon. Robert Bourassa  
Premier and President of the Executive Council

The Hon. Lise Bacon  
Deputy Premier and Minister of Cultural Affairs

The Hon. Gérard-D. Lévesque  
Minister of Finance

The Hon. Claude Ryan  
Minister of Education and Minister of Science and Technology

The Hon. Michel Gratton  
Government House Leader, Minister Responsible for Electoral Reform, and Minister of Revenue

The Hon. Michel Pagé  
Minister of Agriculture, Fisheries and Food

The Hon. Yvon Picotte  
Minister of Recreation, Hunting and Fishing, and Minister of Tourism

The Hon. John Ciaccia  
Minister of Energy and Resources

The Hon. Marc-Yvan Côté  
Minister of Transport and Minister Responsible for Regional Development

The Hon. Thérèse Lavoie-Roux  
Minister of Health and Social Services, and Minister Responsible for the Family Policy

The Hon. Herbert Marx  
Minister of Justice and Minister Responsible for Consumer Protection and Deregulation

The Hon. Pierre Paradis  
Minister of Manpower and Income Security, and Minister of Labour

The Hon. Daniel Johnson  
Minister of Industry and Commerce

The Hon. Pierre Fortier  
Minister Responsible for Finance and Privatization

The Hon. André Bourbeau  
Minister of Municipal Affairs and Minister Responsible for Housing

The Hon. Richard D. French  
Minister of Communications

The Hon. Clifford Lincoln  
Minister of the Environment

The Hon. Gilles Rocheleau  
Minister of Supply and Services

The Hon. Pierre MacDonald  
Minister of Foreign Trade and Technological Development

The Hon. Gil Rémillard  
Minister of International Relations and Minister Responsible for Canadian Intergovernmental Affairs

The Hon. Paul Gobeil  
President of the Treasury Board and Minister Responsible for Administration

The Hon. Louise Robic  
Minister of Cultural Communities and Immigration

The Hon. Monique Gagnon-Tremblay  
Minister Responsible for the Status of Women

The Hon. Gérard Latulippe  
Solicitor General

The Hon. André Vallerand  
Minister Responsible for Small and Medium-sized Firms

The Hon. Robert Dutil  
Minister Responsible for Fisheries

The Hon. Albert Côté  
Minister Responsible for Forests

The Hon. Raymond Savoie  
Minister Responsible for Mines and Indian Affairs

## Ontario

The Hon. David Peterson  
Premier, President of the Council, Minister of Intergovernmental Affairs, and Minister of Northern Development and Mines (Acting)

The Hon. Robert Nixon  
Treasurer of Ontario, Minister of Economics, Minister of Revenue, and Chairman of the Management Board of Cabinet (Acting)

The Hon. Sean Conway  
Minister of Education and Minister of  
Government Services (Acting)

The Hon. James Bradley  
Minister of the Environment

The Hon. Ian Scott  
Attorney General

The Hon. Jack Riddell  
Minister of Agriculture and Food

The Hon. John Eakins  
Minister of Tourism and Recreation

The Hon. Vincent Kerrio  
Minister of Natural Resources and Minister of  
Energy

The Hon. Hugh O'Neil  
Minister of Industry, Trade and Technology

The Hon. John Sweeney  
Minister of Community and Social Services

The Hon. Murray Elston  
Minister of Health

The Hon. William Wrye  
Minister of Labour

The Hon. Bernard Grandmaitre  
Minister of Municipal Affairs

The Hon. Alvin Curling  
Minister of Housing

The Hon. Ed Fulton  
Minister of Transportation and Communications

The Hon. Ken Keyes  
Solicitor General and Minister of Correctional  
Services

The Hon. Monte Kwinter  
Minister of Consumer and Commercial Relations,  
and Minister of Financial Institutions

The Hon. Lily Munro  
Minister of Citizenship and Culture

The Hon. Gregory Sorbara  
Minister of Colleges and Universities, and Minister  
of Skills Development

The Hon. Ronald Van Horne  
Minister without Portfolio

The Hon. Antony Ruprecht  
Minister without Portfolio

## Manitoba

The Hon. Howard Russell Pawley  
Premier, President of the Council and Minister of  
Federal/Provincial Relations

The Hon. Laurent Louis Desjardins  
Minister of Health, Minister Responsible for  
Sport, and Minister charged with the administra-  
tion of The Boxing and Wrestling Commission Act  
and The Fitness and Amateur Sport Act

The Hon. Leonard Salusbury Evans  
Minister of Employment Services and Economic

Security, and Minister Responsible for and  
charged with the administration of The Manitoba  
Data Services Act

The Hon. Billie Uruski  
Minister of Agriculture

The Hon. Jay Marine Cowan  
Minister of Co-operative Development

The Hon. Wilson D. Parasiuk  
Minister of Energy and Mines, and Minister  
Responsible for the administration of The  
Manitoba Hydro Act

The Hon. Victor Schroeder  
Minister of Industry, Trade and Technology, and  
Minister Responsible for The Development  
Corporation

The Hon. Maureen Lucille Hemphill  
Minister of Business Development and Tourism,  
and Minister of Housing

The Hon. Eugene Michael Kostyra  
Minister of Finance and Minister Responsible for  
the Civil Service Act, The Civil Service  
Superannuation Act, The Civil Service Special  
Supplementary Severance Benefit Act and the  
Public Servants Insurance Act

The Hon. Roland Penner  
Attorney General, Keeper of the Great Seal, Min-  
ister Responsible for Constitutional Affairs and  
Minister Responsible for the administration of  
the Liquor Control Act

The Hon. Muriel Ann Smith  
Minister of Community Services

The Hon. Alvin Henry Mackling  
Minister of Consumer and Corporate Affairs and  
Minister of Labour

The Hon. Jerry Thomas Storie  
Minister of Education and Minister Responsible  
for and charged with the administration of  
Manitoba Forestry Resources Ltd.

The Hon. John S. Plohman  
Minister of Highways and Transportation

The Hon. John Bucklaschuk  
Minister of Municipal Affairs and Minister  
charged with the administration of The Manitoba  
Public Insurance Corporation Act

The Hon. Gerald Lecuyer  
Minister of Environment and Workplace Safety  
and Health

The Hon. Harry M. Harapiak  
Minister of Government Services and Minister  
Responsible for The Workers' Compensation Act

The Hon. Elijah Harper  
Minister of Northern Affairs, Minister  
Responsible for The Communities Economic  
Development Act, The Manitoba Natural  
Resources Development Act (with respect to  
Channel Area Loggers Ltd. or to Moose Lake  
Loggers Ltd.), and Minister Responsible for  
Native Affairs



The Hon. Gary Albert Doer

Minister of Urban Affairs, Minister of Crown Investments and Minister Responsible for The Manitoba Telephone Act

The Hon. Leonard Ernest Harapiak  
Minister of Natural Resources

The Hon. K. Judith Wasylcia-Leis  
Minister of Culture, Heritage and Recreation,  
Minister Responsible for the Status of Women,  
and Minister charged with the administration of  
The Manitoba Lotteries Foundation Act

### Saskatchewan

The Hon. D. Grant Devine  
Premier, President of the Executive Council, and  
Minister of Agriculture

The Hon. Eric Bernston  
Deputy Premier and Provincial Secretary

The Hon. Robert Lynal Andrew  
Minister of Justice and Minister of Economic  
Development and Trade

The Hon. John Gary Lane  
Minister of Finance, Minister of Revenue and  
Financial Services, and Minister of Telephones

The Hon. Douglas Graham Taylor  
Minister of Tourism and Small Business, Minister  
of Supply and Services, and Minister Responsible  
for the Northern Affairs Secretariat

The Hon. Joan Heather Duncan  
Minister of Consumer and Commercial Affairs,  
and Minister of Co-operation and Co-operative  
Development

The Hon. Neal Herbert Hardy  
Minister of Rural Development

The Hon. George Malcolm McLeod  
Minister of Health

The Hon. Patricia Anne Smith  
Minister of Energy and Mines

The Hon. Lorne Henry Hepworth  
Minister of Advanced Education and Manpower,  
and Minister of Education

The Hon. Colin Maxwell  
Minister of Parks and Renewable Resources, and  
Minister of Culture and Recreation

The Hon. Grant Hodgins  
Minister of Highways and Transportation

The Hon. Grant Jacob Schmidt  
Minister of Human Resources, Labour and  
Employment, and Minister of Social Services

The Hon. Jack Charles Klein  
Minister of Urban Affairs

The Hon. Raymond Meiklejohn  
Minister of Science and Technology

The Hon. Herbert Junior Swan  
Minister of Environment and Public Safety

### Alberta

The Hon. Donald R. Getty  
Premier and President of Executive Council

The Hon. J. Allen Adair  
Minister of Transportation and Utilities

The Hon. Dennis L. Anderson  
Minister of Culture and Associate Deputy  
Government House Leader

The Hon. Nancy J. Betkowski  
Minister of Education

The Hon. Neil S. Crawford  
Minister of Municipal Affairs and Government  
House Leader

The Hon. Shirley A. Cripps  
Associate Minister of Agriculture

The Hon. James F. Dinning  
Minister of Community and Occupational Health

The Hon. Peter Elzinga  
Minister of Agriculture

The Hon. E. LeRoy Fjordbotten  
Minister of Tourism

The Hon. James D. Horsman  
Attorney General and Minister of Federal and  
Intergovernmental Affairs

The Hon. Ernest D. Isley  
Minister of Public Works, Supply and Services

The Hon. Dick Johnston  
Provincial Treasurer

The Hon. Kenneth R. Kowalski  
Minister of the Environment

The Hon. Elaine McCoy  
Minister of Consumer and Corporate Affairs

The Hon. Marvin E. Moore  
Minister of Hospitals and Medical Care

The Hon. Richard D. Orman  
Minister of Career Development and  
Employment

The Hon. Connie E. Osterman  
Minister of Social Services

The Hon. Dr. Ian C. Reid  
Minister of Labour

The Hon. Kenneth L. Rostad  
Solicitor General

The Hon. David J. Russell  
Deputy Premier, Minister of Advanced  
Education, and Deputy Government House  
Leader

The Hon. Larry R. Shabem  
Minister of Economic Development and Trade

The Hon. Donald H. Sparrow  
Minister of Forestry, Lands and Wildlife

The Hon. Dr. P. Neil Webber  
Minister of Energy

The Hon. Norman A. Weiss  
Minister of Recreation and Parks

The Hon. Leslie G. Young  
Minister of Technology, Research and  
Telecommunications, and Deputy Government  
House Leader

### **British Columbia**

The Hon. William N. Vander Zalm  
Premier of the Province and President of the  
Council

The Hon. John Savage  
Minister of Agriculture and Fisheries

The Hon. Brian R.D. Smith, QC  
Attorney General

The Hon. Stanley Hagen  
Minister of Continuing Education and Job  
Training

The Hon. Grace M. McCarthy  
Minister of Economic Development

The Hon. Anthony (Tony) J. Brummet  
Minister of Education

The Hon. John (Jack) Davis  
Minister of Energy, Mines and Petroleum  
Resources

The Hon. William B. Strachan  
Minister of Environment and Parks

The Hon. Melville B. Couvelier  
Minister of Finance and Corporate Relations

The Hon. John Savage  
Minister of Forests and Lands (Acting)

The Hon. Peter A. Dueck  
Minister of Health

The Hon. Stephen C. Rogers  
Minister of Intergovernmental Relations

The Hon. Lyall Hanson  
Minister of Labour and Consumer Services

The Hon. Rita M. Johnston  
Minister of Municipal Affairs

The Hon. Elwood N. Veitch  
Provincial Secretary and Minister of Government  
Services

The Hon. Claude H. Richmond  
Minister of Social Services and Housing

The Hon. William E. Reid  
Minister of Tourism, Recreation and Culture

The Hon. Clifford C. Michael  
Minister of Transportation and Highways

### **Yukon**

The Hon. Tony Penikett  
Government Leader, Executive Council Office,  
Minister of Finance, Minister Responsible for the  
Public Service Commission, and Minister of  
Economic Development: Mines and Small  
Business

The Hon. David Porter  
Minister of Tourism and Minister of Renewable  
Resources

The Hon. Roger Kimmerly  
Minister of Justice and Minister of Government  
Services

The Hon. Piers McDonald  
Minister of Education and Minister of  
Community and Transportation Services

The Hon. Margaret Joe  
Minister of Health and Human Resources, and  
Minister Responsible for The Women's  
Directorate

### **Northwest Territories**

The Hon. Nick Sibbeston  
Government Leader, Chairman of the Executive  
Council, and Minister of Culture and  
Communications

The Hon. Tom Butters  
Minister of Finance and Minister of Energy,  
Mines and Resources

The Hon. Dennis Patterson  
Minister of Education and Minister Responsible  
for Aboriginal Rights and Constitutional  
Development

The Hon. Tagak Curley  
Minister of Economic Development and Minister  
of Government Services

The Hon. Bruce McLaughlin  
Minister of Social Services and Minister of Health

The Hon. Gordon Wray  
Minister of Public Works and Highways and  
Minister of Municipal and Community Affairs

The Hon. Red Pedersen  
Minister of Renewable Resources, Minister of  
Personnel and Minister Responsible for the Status  
of Women

The Hon. Michael Ballantyne  
Minister of Justice and Minister Responsible for  
the Northwest Territories Housing Corporation

## APPENDIX D

# COMMISSIONS OF INQUIRY

### Federal commissions

Royal commissions under Part I of the Inquiries Act, established up to March 1984, are described in previous editions of the *Canada Year Book* beginning with the 1940 edition. The following list presents the federal commissions established between April 1984 and April 1987, the name of the chief commissioner or chairman, and the date each was established.

Commission of inquiry on the pharmaceutical industry, Dr. Harry Eastman, April 17, 1984.

Commission of inquiry to investigate and develop sentencing guidelines under the Criminal Code and related statutes, the Hon. William Robert Sinclair, May 10, 1984, His Honour Judge J.R. Omer Archambault, February 8, 1985.

Royal commission on seals and the sealing industry in Canada, Mr. Justice Albert Malouf, June 22, 1984.

Commission of inquiry on war criminals, the Hon. Mr. Justice Jules Deschênes, February 7, 1985.

Commission of inquiry on Unemployment Insurance, Claude Forget, July 4, 1985.

Commission of inquiry on certain banking operations, the Hon. Willard Z. Estey, September 29, 1985.

Commission of inquiry into the Hinton train collision, Mr. Justice René Paul Foisy, February 10, 1986.

Commission of inquiry into the facts of allegations of conflict of interest concerning the Hon. Sinclair M. Stevens, the Hon. William Dickens Parker, May 15, 1986.

Commission of inquiry concerning certain matters associated with the Westbank Indian band, John E. Hall, August 12, 1986.

### Provincial and territorial commissions

The following list presents commissions of inquiry and provincial and territorial commissions established between April 1984 and April 1987, the name of the chief commissioner or chairman, and the date each was established.

#### Newfoundland

Royal commission on employment and unemployment, Douglas House, PhD, January 15, 1985.

Commission of inquiry into pole attachment rates, Mervin G. Andrews, B.Eng., MASC, P.Eng., February 19, 1985.

Commission of inquiry into the salaries, pensions and other benefits of provincial court judges in Newfoundland, October 8, 1985.

#### Prince Edward Island

Royal commission on the potato industry, Frederick L. Driscoll, October 20, 1986.

Commission of inquiry on Regional Administrative Unit No. 3, Mr. Justice Kenneth R. MacDonald (Supreme Court of Prince Edward Island), March 5, 1987.

#### Nova Scotia

Commission of inquiry respecting the death of Sandford William Seale; the charging, prosecution, conviction and sentencing of Donald Marshall, Jr., for the non-capital murder of Sandford William Seale, the Hon. Mr. Justice T. Alexander Hickman, October 28, 1986.

#### Quebec

Commission of inquiry on health and social services, Jean Rochon, June 18, 1985.

#### Ontario

Royal commission on the testing and marketing of liquor in Ontario, John Osler, 1985.

#### Manitoba

The City of Winnipeg act review, Lawrie Churniack, April 11, 1984.

Retail gasoline prices inquiry, Costas Nicolaou, March 26, 1986.

Inquiry into conflict of interest allegations against Wilson Parasiuk, MLA, the Hon. Samuel Freedman, May 21, 1986.

#### Saskatchewan

The local government finance commission, Raymond E. Clayton, May 23, 1984.

The Culliton inquiry, Edward M. Culliton, July 12, 1984.

Commission of inquiry re proposed code of ethical conduct for public office holders and conflict of interest guidelines for cabinet ministers and legislative secretaries, Edward M. Culliton, April 30, 1986.

#### **Alberta**

West Edmonton Mall roller coaster inquiry, Mr. K.A. McKenzie, June 20, 1986.

#### **British Columbia**

Commission to inquire into the matter of compensation to Kenneth N. Warwick, aka Kenneth Fox, for term of imprisonment served by him, the Hon. M.M. McFarlane, QC, March 26, 1985.

Commission to inquire into matters associated with the alleged injuries sustained by Michael A. Jacobson during his detention in a Vancouver police station, Malcolm M. Matheson, March 19, 1986.

Commission to inquire into the effectiveness of the delivery of social housing in British Columbia, James Cosh, March 27, 1986.

Commission to inquire into education from kindergarten through Grade 12, Barry M. Sullivan, QC, March 14, 1987.

Commission to inquire into the composition of those electoral districts that now return two members to the Legislative Assembly, the Hon. Thomas Kemp Fisher, April 9, 1987.

#### **Yukon**

Joint commission on Indian education and training, Mary Jane Joe, January 1, 1987.

Legislative review of Motor Vehicles Act and regulations, Motor Transport Act and regulations, Highways Act and regulations, Bob Iwanicki, August 1, 1986.

#### **Northwest Territories**

Special committee of the Legislative Assembly on rules, procedures and privileges, Ted Richard, October 28, 1985.



## APPENDIX E

# CONSTITUTION

### Proclamation

*The Constitution Act, 1982, was proclaimed in force April 17, 1982. The following text of the proclamation is reprinted from Canada Gazette Part II, Vol. 116, No. 9, May 12, 1982:*

**Elizabeth R**

**Jean Chrétien**

*Attorney General of Canada*

**Elizabeth the Second**, by the Grace of God of the United Kingdom, Canada and Her other Realms and Territories **Queen**, Head of the Commonwealth, Defender of the Faith.

To All to Whom these Presents shall come or whom the same may in anyway concern,

*Greeting:*

### A Proclamation

Whereas in the past certain amendments to the Constitution of Canada have been made by the Parliament of the United Kingdom at the request and with the consent of Canada;

And Whereas it is in accord with the status of Canada as an independent state that Canadians be able to amend their Constitution in Canada in all respects;

And Whereas it is desirable to provide in the Constitution of Canada for the recognition of certain fundamental rights and freedoms and to make other amendments to the Constitution;

And Whereas the Parliament of the United Kingdom has, at the request and with the consent of Canada, enacted the Canada Act, which provides for the patriation and amendment of the Constitution of Canada;

And Whereas section 58 of the Constitution Act, 1982, set out in Schedule B to the Canada Act, provides that the Constitution Act, 1982 shall, subject to section 59 thereof, come into force on a day to be fixed by proclamation issued under the Great Seal of Canada.

Now Know You that We, by and with the advice of Our Privy Council for Canada, do by this Our Proclamation, declare that the Constitution Act, 1982 shall, subject to section 59 thereof, come into force on the seventeenth day of April in the Year of Our Lord One Thousand Nine Hundred and Eighty-two.

Of All Which Our Loving Subjects and all others whom these Presents may concern are hereby required to take notice and to govern themselves accordingly.

In Testimony Whereof We have caused these Our Letters to be made Patent and the Great Seal of Canada to be hereunto affixed.

At Our City of Ottawa, this seventeenth day of April in the Year of Our Lord One Thousand Nine Hundred and Eighty-two and in the Thirty-first Year of Our Reign.

By Her Majesty's Command

**André Ouellet**

Registrar General of Canada

**Pierre Trudeau**

Prime Minister of Canada

**GOD SAVE THE QUEEN**

### Canada Act 1982

*The Canada Act 1982 (U.K.) 1982, c.11, came into force April 17, 1982. The Canada Act 1982 other than Schedule A (French version of Constitution*

*Act, 1982) and Schedule B (English version) thereto, reads as follows:*

An Act to give effect to a request by the Senate and House of Commons of Canada

Whereas Canada has requested and consented to the enactment of an Act of the Parliament of the United Kingdom to give effect to the provisions hereinafter set forth and the Senate and the House of Commons of Canada in Parliament assembled have submitted an address to Her Majesty requesting that Her Majesty may graciously be pleased to cause a Bill to be laid before the Parliament of the United Kingdom for that purpose.

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. The Constitution Act, 1982 set out in Schedule B to this Act is hereby enacted for and shall have the force of law in Canada and shall come into force as provided in that Act.
2. No Act of the Parliament of the United Kingdom passed after the Constitution Act, 1982 comes into force shall extend to Canada as part of its law.
3. So far as it is not contained in Schedule B, the French version of this Act is set out in Schedule A to this Act and has the same authority in Canada as the English version thereof.
4. This Act may be cited as the Canada Act 1982.

### **Constitution Act, 1982**

*The Constitution Act, 1982 was enacted as Schedule B to the Canada Act 1982. The following text is extracted from A consolidation of the Constitution Acts 1867 to 1982, Department of Justice Canada, consolidated as of April 17, 1982. The Constitution Act, 1982 came into effect on that date with the exception of paragraph 23(1)(a) in respect of Quebec. The schedule to the Constitution Act, 1982, referred to in Part VII contains repeals of certain earlier constitutional enactments and provides for the renaming of others, as part of the modernization of the constitution. (The schedule is not reprinted here.)*

### **Part I**

#### **Canadian Charter of Rights and Freedoms**

Whereas Canada is founded upon principles that recognize the supremacy of God and the rule of law:

#### *Guarantee of Rights and Freedoms*

1. The Canadian Charter of Rights and Freedoms guarantees the rights and freedoms set out in it subject only to such reasonable limits prescribed by law as can be demonstrably justified in a free and democratic society.

#### *Fundamental Freedoms*

2. Everyone has the following fundamental freedoms:

- (a) freedom of conscience and religion;
- (b) freedom of thought, belief, opinion and expression, including freedom of the press and other media of communication;
- (c) freedom of peaceful assembly; and
- (d) freedom of association.

#### *Democratic Rights*

3. Every citizen of Canada has the right to vote in an election of members of the House of Commons or of a legislative assembly and to be qualified for membership therein.

4. (1) No House of Commons and no legislative assembly shall continue for longer than five years from the date fixed for the return of the writs of a general election of its members.

(2) In time of real or apprehended war, invasion or insurrection, a House of Commons may be continued by Parliament and a legislative assembly may be continued by the legislature beyond five years if such continuation is not opposed by the votes of more than one-third of the members of the House of Commons or the legislative assembly, as the case may be.

5. There shall be a sitting of Parliament and of each legislature at least once every twelve months.

#### *Mobility Rights*

6. (1) Every citizen of Canada has the right to enter, remain in and leave Canada.

(2) Every citizen of Canada and every person who has the status of a permanent resident of Canada has the right

- (a) to move to and take up residence in any province; and
- (b) to pursue the gaining of a livelihood in any province.

(3) The rights specified in subsection (2) are subject to

- (a) any laws or practices of general application in force in a province other than those that discriminate among persons primarily on the basis of province of present or previous residence; and

(b) any laws providing for reasonable residency requirements as a qualification for the receipt of publicly provided social services.

(4) Subsections (2) and (3) do not preclude any law, program or activity that has as its object the amelioration in a province of conditions of individuals in that province who are socially or economically disadvantaged if the rate of employment in that province is below the rate of employment in Canada.

### *Legal Rights*

7. Everyone has the right to life, liberty and security of the person and the right not to be deprived thereof except in accordance with the principles of fundamental justice.

8. Everyone has the right to be secure against unreasonable search or seizure.

9. Everyone has the right not to be arbitrarily detained or imprisoned.

10. Everyone has the right on arrest or detention (a) to be informed promptly of the reasons therefor;

(b) to retain and instruct counsel without delay and to be informed of that right; and

(c) to have the validity of the detention determined by way of *habeas corpus* and to be released if the detention is not lawful.

11. Any person charged with an offence has the right

(a) to be informed without unreasonable delay of the specific offence;

(b) to be tried within a reasonable time;

(c) not to be compelled to be a witness in proceedings against that person in respect of the offence;

(d) to be presumed innocent until proven guilty according to law in a fair and public hearing by an independent and impartial tribunal;

(e) not to be denied reasonable bail without just cause;

(f) except in the case of an offence under military law tried before a military tribunal, to the benefit of trial by jury where the maximum punishment for the offence is imprisonment for five years or a more severe punishment;

(g) not to be found guilty on account of any act or omission unless, at the time of the act or omission, it constituted an offence under Canadian or international law or was criminal according to the general principles of law recognized by the community of nations;

(h) if finally acquitted of the offence, not to be tried for it again and, if finally found guilty

and punished for the offence, not to be tried or punished for it again; and

(i) if found guilty of the offence and if the punishment for the offence has been varied between the time of commission and the time of sentencing, to the benefit of the lesser punishment.

12. Everyone has the right not to be subjected to any cruel and unusual treatment or punishment.

13. A witness who testifies in any proceedings has the right not to have any incriminating evidence so given used to incriminate that witness in any other proceedings, except in a prosecution for perjury or for the giving of contradictory evidence.

14. A party or witness in any proceedings who does not understand or speak the language in which the proceedings are conducted or who is deaf has the right to the assistance of an interpreter.

### *Equality Rights*

15. (1) Every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

(2) Subsection (1) does not preclude any law, program or activity that has as its object the amelioration of conditions of disadvantaged individuals or groups including those that are disadvantaged because of race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

### *Official Languages of Canada*

16. (1) English and French are the official languages of Canada and have equality of status and equal rights and privileges as to their use in all institutions of the Parliament and government of Canada.

(2) English and French are the official languages of New Brunswick and have equality of status and equal rights and privileges as to their use in all institutions of the legislature and government of New Brunswick.

(3) Nothing in this Charter limits the authority of Parliament or a legislature to advance the equality of status or use of English and French.

17. (1) Everyone has the right to use English or French in any debates and other proceedings of Parliament.

(2) Everyone has the right to use English or French in any debates and other proceedings of the legislature of New Brunswick.

**18.** (1) The statutes, records and journals of Parliament shall be printed and published in English and French and both language versions are equally authoritative.

(2) The statutes, records and journals of the legislature of New Brunswick shall be printed and published in English and French and both language versions are equally authoritative.

**19.** (1) Either English or French may be used by any person in, or in any pleading in or process issuing from, any court established by Parliament.

(2) Either English or French may be used by any person in, or in any pleading in or process issuing from, any court of New Brunswick.

**20.** (1) Any member of the public in Canada has the right to communicate with, and to receive available services from, any head or central office of an institution of the Parliament or government of Canada in English or French, and has the same right with respect to any other office of any such institution where

(a) there is a significant demand for communications with and services from that office in such language; or

(b) due to the nature of the office, it is reasonable that communications with and services from that office be available in both English and French.

(2) Any member of the public in New Brunswick has the right to communicate with, and to receive available services from, any office of an institution of the legislature or government of New Brunswick in English or French.

**21.** Nothing in sections 16 to 20 abrogates or derogates from any right, privilege or obligation with respect to the English and French languages, or either of them, that exists or is continued by virtue of any other provision of the Constitution of Canada.

**22.** Nothing in sections 16 to 20 abrogates or derogates from any legal or customary right or privilege acquired or enjoyed either before or after the coming into force of this Charter with respect to any language that is not English or French.

#### *Minority Language Educational Rights*

**23.** (1) Citizens of Canada

(a) whose first language learned and still understood is that of the English or French linguistic minority population of the province in which they reside, or

(b) who have received their primary school instruction in Canada in English or French and reside in a province where the language in which they received that instruction is the language of the English or French linguistic minority population of the province, have the right to have their children receive primary and secondary school instruction in that language in that province.

(2) Citizens of Canada of whom any child has received or is receiving primary or secondary school instruction in English or French in Canada, have the right to have all their children receive primary and secondary school instruction in the same language.

(3) The right of citizens of Canada under subsections (1) and (2) to have their children receive primary and secondary school instruction in the language of the English or French linguistic minority population of a province

(a) applies wherever in the province the number of children of citizens who have such a right is sufficient to warrant the provision to them out of public funds of minority language instruction; and

(b) includes, where the number of those children so warrants, the right to have them receive that instruction in minority language educational facilities provided out of public funds.

#### *Enforcement*

**24.** (1) Anyone whose rights or freedoms, as guaranteed by this Charter, have been infringed or denied may apply to a court of competent jurisdiction to obtain such remedy as the court considers appropriate and just in the circumstances.

(2) Where, in proceedings under subsection (1), a court concludes that evidence was obtained in a manner that infringed or denied any rights or freedoms guaranteed by this Charter, the evidence shall be excluded if it is established that, having regard to all the circumstances, the admission of it in the proceedings would bring the administration of justice into disrepute.

#### *General*

**25.** The guarantee of this Charter of certain rights and freedoms shall not be construed so as to abrogate or derogate from any aboriginal, treaty or other rights or freedoms that pertain to the aboriginal peoples of Canada including

(a) any rights or freedoms that have been recognized by the Royal Proclamation of October 7, 1763; and

(b) any rights or freedoms that may be acquired by the aboriginal peoples of Canada by way of land claims settlement.



26. The guarantee in this Charter of certain rights and freedoms shall not be construed as denying the existence of any other rights or freedoms that exist in Canada.

27. This Charter shall be interpreted in a manner consistent with the preservation and enhancement of the multicultural heritage of Canadians.

28. Notwithstanding anything in this Charter, the rights and freedoms referred to in it are guaranteed equally to male and female persons.

29. Nothing in this Charter abrogates or derogates from any rights or privileges guaranteed by or under the Constitution of Canada in respect of denominational, separate or dissentient schools.

30. A reference in this Charter to a Province or to the legislative assembly or legislature of a province shall be deemed to include a reference to the Yukon Territory and the Northwest Territories, or to the appropriate legislative authority thereof, as the case may be.

31. Nothing in this Charter extends the legislative powers of any body or authority.

#### *Application of Charter*

32. (1) This Charter applies

(a) to the Parliament and government of Canada in respect of all matters within the authority of Parliament including all matters relating to the Yukon Territory and Northwest Territories; and  
(b) to the legislature and government of each province in respect of all matters within the authority of the legislature of each province.

(2) Notwithstanding subsection (1), section 15 shall not have effect until three years after this section comes into force.

33. (1) Parliament or the legislature of a province may expressly declare in an Act of Parliament or of the legislature, as the case may be, that the Act or a provision thereof shall operate notwithstanding a provision included in section 2 or sections 7 to 15 of this Charter.

(2) An Act or a provision of an Act in respect of which a declaration made under this section is in effect shall have such operation as it would have but for the provision of this Charter referred to in the declaration.

(3) A declaration made under subsection (1) shall cease to have effect five years after it comes into force or on such earlier date as may be specified in the declaration.

(4) Parliament or the legislature of a province may re-enact a declaration made under subsection (1).

(5) Subsection (3) applies in respect of a re-enactment made under subsection (4).

#### *Citation*

34. This Part may be cited as the *Canadian Charter of Rights and Freedoms*.

## **Part II Rights of the Aboriginal Peoples of Canada**

35. (1) The existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed.

(2) In this Act, "aboriginal peoples of Canada" includes the Indian, Inuit and Métis peoples of Canada.

## **Part III Equalization and Regional Disparities**

36. (1) Without altering the legislative authority of Parliament or of the provincial legislatures, or the rights of any of them with respect to the exercise of their legislative authority, Parliament and the legislatures, together with the government of Canada and the provincial governments, are committed to

(a) promoting equal opportunities for the well-being of Canadians;  
(b) furthering economic development to reduce disparity in opportunities; and  
(c) providing essential public services of reasonable quality to all Canadians.

(2) Parliament and the government of Canada are committed to the principle of making equalization payments to ensure that provincial governments have sufficient revenues to provide reasonably comparable levels of public services at reasonably comparable levels of taxation.

## **Part IV Constitutional Conference**

37. (1) A constitutional conference composed of the Prime Minister of Canada and the first ministers of the provinces shall be convened by the Prime Minister of Canada within one year after this Part comes into force.

(2) The conference convened under subsection (1) shall have included in its agenda an item respecting constitutional matters that directly affect the aboriginal peoples of Canada, including the identification and definition of the rights of those peoples to be included in the Constitution of Canada and the Prime Minister of Canada shall invite representatives of those peoples to participate in the discussions on that item.

(3) The Prime Minister of Canada shall invite elected representatives of the governments of the Yukon Territory and the Northwest Territories to participate in the discussions on any item on the agenda of the conference convened under subsection (1) that, in the opinion of the Prime Minister, directly affects the Yukon Territory and the Northwest Territories.

## **Part V**

### **Procedure for Amending Constitution of Canada**

**38.** (1) An amendment to the Constitution of Canada may be made by proclamation issued by the Governor General under the Great Seal of Canada where so authorized by

(a) resolutions of the Senate and House of Commons; and

(b) resolutions of the legislative assemblies of at least two-thirds of the provinces that have, in the aggregate, according to the then latest general census, at least fifty per cent of the population of all the provinces.

(2) An amendment made under subsection (1) that derogates from the legislative powers, the proprietary rights or any other rights or privileges of the legislature or government of a province shall require a resolution supported by a majority of the members of each of the Senate, the House of Commons and the legislative assemblies required under subsection (1).

(3) An amendment referred to in subsection (2) shall not have effect in a province the legislative assembly of which has expressed its dissent thereto by resolution supported by a majority of its members prior to the issue of the proclamation to which the amendment relates unless that legislative assembly, subsequently, by resolution supported by a majority of its members, revokes its dissent and authorizes the amendment.

(4) A resolution of dissent made for the purposes of subsection (3) may be revoked at any time before or after the issue of the proclamation to which it relates.

**39.** (1) A proclamation shall not be issued under subsection 38(1) before the expiration of one year from the adoption of the resolution initiating the amendment procedure thereunder, unless the legislative assembly of each province has previously adopted a resolution of assent or dissent.

(2) A proclamation shall not be issued under subsection 38(1) after the expiration of three years from the adoption of the resolution initiating the amendment procedure thereunder.

**40.** Where an amendment is made under subsection 38(1) that transfers provincial legislative powers relating to education or other cultural matters from provincial legislatures to Parliament, Canada shall provide reasonable compensation to any province to which the amendment does not apply.

**41.** An amendment to the Constitution of Canada in relation to the following matters may be made by proclamation issued by the Governor General under the Great Seal of Canada only where authorized by resolutions of the Senate and House of Commons and of the legislative assembly of each province:

(a) the office of the Queen, the Governor General and the Lieutenant Governor of a province;

(b) the right of a province to a number of members in the House of Commons not less than the number of Senators by which the province is entitled to be represented at the time this Part comes into force;

(c) subject to section 43, the use of the English or the French language;

(d) the composition of the Supreme Court of Canada; and

(e) an amendment to this Part.

**42.** (1) An amendment to the Constitution of Canada in relation to the following matters may be made only in accordance with subsection 38(1):

(a) the principle of proportionate representation of the provinces in the House of Commons prescribed by the Constitution of Canada;

(b) the powers of the Senate and the method of selecting Senators;

(c) the number of members by which a province is entitled to be represented in the Senate and the residence qualifications of Senators;

(d) subject to paragraph 41(d), the Supreme Court of Canada;

(e) the extension of existing provinces into the territories; and

(f) notwithstanding any other law or practice, the establishment of new provinces.

(2) Subsections 38(2) to (4) do not apply in respect of amendments in relation to matters referred to in subsection (1).

43. An amendment to the Constitution of Canada in relation to any provision that applies to one or more, but not all, provinces, including
- any alteration to boundaries between provinces, and
  - any amendment to any provision that relates to the use of the English or the French language within a province, may be made by proclamation issued by the Governor General under the Great Seal of Canada only where so authorized by resolutions of the Senate and House of Commons and of the legislative assembly of each province to which the amendment applies.
44. Subject to sections 41 and 42, Parliament may exclusively make laws amending the Constitution of Canada in relation to the executive government of Canada or the Senate and House of Commons.
45. Subject to section 41, the legislature of each province may exclusively make laws amending the Constitution of the province.
46. (1) The procedures for amendment under sections 38, 41, 42 and 43 may be initiated either by the Senate or the House of Commons or by the legislative assembly of a province.
- (2) A resolution of assent made for the purposes of this Part may be revoked at any time before the issue of a proclamation authorized by it.
47. (1) An amendment to the Constitution of Canada made by proclamation under section 38, 41, 42 or 43 may be made without a resolution of the Senate authorizing the issue of the proclamation if, within one hundred and eighty days after the adoption by the House of Commons of a resolution authorizing its issue, the Senate has not adopted such a resolution and if, at any time after the expiration of that period, the House of Commons again adopts the resolution.
- (2) Any period when Parliament is prorogued or dissolved shall not be counted in computing the one hundred and eighty day period referred to in subsection (1).
48. The Queen's Privy Council for Canada shall advise the Governor General to issue a proclamation under this Part forthwith on the adoption of the resolutions required for an amendment made by proclamation under this Part.
49. A constitutional conference composed of the Prime Minister of Canada and the first ministers of the provinces shall be convened by the Prime Minister of Canada within fifteen years after this Part comes into force to review the provisions of this Part.

## Part VI

### Amendment to the Constitution Act, 1867

50. The *Constitution Act, 1867* (formerly named the *British North America Act, 1867*) is amended by adding thereto, immediately after section 92 thereof, the following heading and section:

#### *Non-Renewable Natural Resources, Forestry Resources and Electrical Energy*

92A. (1) In each province, the legislature may exclusively make laws in relation to

(a) exploration for non-renewable natural resources in the province;

(b) development, conservation and management of non-renewable natural resources and forestry resources in the province, including laws in relation to the rate of primary production therefrom; and

(c) development, conservation and management of sites and facilities in the province for the generation and production of electrical energy.

(2) In each province, the legislature may make laws in relation to the export from the province to another part of Canada of the primary production from non-renewable natural resources and forestry resources in the province and the production from facilities in the province for the generation of electrical energy, but such laws may not authorize or provide for discrimination in prices or in supplies exported to another part of Canada.

(3) Nothing in subsection (2) derogates from the authority of Parliament to enact laws in relation to matters referred to in that subsection and, where such a law of Parliament and a law of a province conflict, the law of Parliament prevails to the extent of the conflict.

(4) In each province, the legislature may make laws in relation to the raising of money by any mode or system of taxation in respect of

(a) non-renewable natural resources and forestry resources in the province and the primary production therefrom, and

(b) sites and facilities in the province for the generation of electrical energy and the production therefrom, whether or not such production is exported in whole or in part from the province, but such laws may not authorize or provide for taxation that differentiates between production exported to another part of Canada and production not exported from the province.

(5) The expression "primary production" has the meaning assigned by the Sixth Schedule.

(6) Nothing in subsections (1) to (5) derogates from any powers or rights that a legislature or



government of a province had immediately before the coming into force of this section.

51. The said Act is further amended by adding thereto the following Schedule:

**THE SIXTH SCHEDULE**  
*Primary Production from  
 Non-Renewable Natural Resources  
 and Forestry Resources*

1. For the purposes of section 92A of this Act,
  - (a) production from a non-renewable natural resource is primary production therefrom if
    - (i) it is in the form in which it exists upon its recovery or severance from its natural state, or
    - (ii) it is a product resulting from processing or refining the resource, and is not a manufactured product or a product resulting from refining crude oil, refining upgraded heavy crude oil, refining gases or liquids derived from coal or refining a synthetic equivalent of crude oil; and
  - (b) production from a forestry resource is primary production therefrom if it consists of sawlogs, poles, lumber, wood chips, sawdust or any other primary wood product, or wood pulp, and is not a product manufactured from wood.

**Part VII**  
**General**

52. (1) The Constitution of Canada is the supreme law of Canada, and any law that is inconsistent with the provisions of the Constitution is, to the extent of the inconsistency, of no force or effect.

- (2) The Constitution of Canada includes
  - (a) the *Canada Act 1982*, including this Act;
  - (b) the Acts and orders referred to in the schedule; and
  - (c) any amendment to any Act or order referred to in paragraph (a) or (b).
- (3) Amendments to the Constitution of Canada shall be made only in accordance with the authority contained in the Constitution of Canada.

53. (1) The enactments referred to in Column I of the schedule are hereby repealed or amended to the extent indicated in Column II thereof and, unless repealed, shall continue as law in Canada under the names set out in Column III thereof.

(2) Every enactment, except the *Canada Act 1982*, that refers to an enactment referred to in the schedule by the name in Column I thereof is hereby amended by substituting for that name the corresponding name in Column III thereof, and any

British North America Act not referred to in the schedule may be cited as the *Constitution Act* followed by the year and number, if any, of its enactment.

54. Part IV is repealed on the day that is one year after this Part comes into force and this section may be repealed and this act renumbered, consequentially upon the repeal of Part IV and this section, by proclamation issued by the Governor General under the Great Seal of Canada.

55. A French version of the portions of the Constitution of Canada referred to in the schedule shall be prepared by the Minister of Justice of Canada as expeditiously as possible and, when any portion thereof sufficient to warrant action being taken has been so prepared, it shall be put forward for enactment by proclamation issued by the Governor General under the Great Seal of Canada pursuant to the procedure then applicable to an amendment of the same provisions of the Constitution of Canada.

56. Where any portion of the Constitution of Canada has been or is enacted in English and French or where a French version of any portion of the Constitution is enacted pursuant to section 55, the English and French versions of that portion of the Constitution are equally authoritative.

57. The English and French versions of this Act are equally authoritative.

58. Subject to section 59, this Act shall come into force on a day to be fixed by proclamation issued by the Queen or the Governor General under the Great Seal of Canada.

59. (1) Paragraph 23(1)(a) shall come into force in respect of Quebec on a day to be fixed by proclamation issued by the Queen or the Governor General under the Great Seal of Canada.

(2) A proclamation under subsection (1) shall be issued only where authorized by the legislative assembly or government of Quebec.

(3) This section may be repealed on the day paragraph 23(1)(a) comes into force in respect of Quebec and this Act amended and renumbered, consequentially upon the repeal of this section, by proclamation issued by the Queen or the Governor General under the Great Seal of Canada.

60. This Act may be cited as the *Constitution Act, 1982*, and the Constitution Acts 1867 to 1975 (No. 2) and this Act may be cited together as the *Constitution Acts, 1867 to 1982*.



Registration  
SI/84-102 11 July, 1984

## CONSTITUTION ACT, 1982

### Constitution Amendment Proclamation, 1983

By Her Excellency the Right Honourable **Jeanne Sauvé**, Governor General and Commander-in-Chief of Canada.

To All to Whom these Presents shall come,

*Greeting:*

**Jeanne Sauvé**

#### A Proclamation

Whereas the "Constitution Act, 1982" provides that an amendment to the Constitution of Canada may be made by proclamation issued by the Governor General under the Great Seal of Canada where so authorized by resolutions of the Senate and House of Commons and resolutions of the legislative assemblies as provided for in section 38 thereof;

And Whereas a constitutional conference composed of the Prime Minister of Canada and the first ministers of the provinces was convened pursuant to section 37 of the "Constitution Act, 1982";

And Whereas that conference had included in its agenda an item respecting constitutional matters that directly affect the aboriginal peoples of Canada, including the identification and definition of the rights of those peoples to be included in the Constitution of Canada;

And Whereas the Prime Minister of Canada invited representatives of the aboriginal peoples of Canada and elected representatives of the governments of the Yukon Territory and the Northwest Territories to participate in discussions at that conference;

And Whereas, following that conference, the Senate, the House of Commons and the legislative assemblies of at least two-thirds of the provinces that have, in the aggregate, according to the latest general census, at least fifty per cent of the population of all the provinces, have, by resolution, authorized an amendment to the Constitution of Canada to be made by proclamation issued by the Governor General under the Great Seal of Canada;

And Whereas one year, and not more than three years, have expired from the adoption of the resolution initiating the amendment procedure relating to the amendment to the Constitution of Canada set forth in the schedule hereto;

And Whereas the Queen's Privy Council for Canada has advised me to issue this proclamation.

Now Know You that I do issue this proclamation amending the Constitution of Canada in accordance with the schedule hereto.

In Testimony Whereof I have caused these Letters to be made Patent and the Great Seal of Canada to be hereunto affixed.

At Government House, in the City of Ottawa, this twenty-first day of June in the Year of Our Lord one thousand nine hundred and eighty-four.

By Command,

**Mark MacGuigan**

*Attorney General of Canada*

**Judy Erola**

*Registrar General of Canada*

**P.E. Trudeau**

*Prime Minister of Canada*

#### Schedule

#### Proclamation Amending the Constitution of Canada

1. Paragraph 25(b) of the "*Constitution Act, 1982*" is repealed and the following substituted therefor:

"(b) any rights or freedoms that now exist by way of land claims agreements or may be so acquired."

2. Section 35 of the "*Constitution Act, 1982*" is amended by adding thereto the following subsections:

##### *Land Claims Agreements*

"(3) For greater certainty, in subsection (1) "treaty rights" includes rights that now exist by way of land claims agreements or may be so acquired.

##### *Aboriginal and Treaty Rights are guaranteed equally to both sexes*

(4) Notwithstanding any other provision of this Act, the aboriginal and treaty rights referred to in subsection (1) are guaranteed equally to male and female persons."

3. The said Act is further amended by adding thereto, immediately after section 35 thereof, the following section:

*Commitment to participation in constitutional conference*

“35.1 The government of Canada and the provincial governments are committed to the principle that, before any amendment is made to Class 24 of section 91 of the “*Constitution Act, 1867*”, to section 25 of this Act or to this Part,

(a) a constitutional conference that includes in its agenda an item relating to the proposed amendment, composed of the Prime Minister of Canada and the first ministers of the provinces, will be convened by the Prime Minister of Canada; and  
(b) the Prime Minister of Canada will invite representatives of the aboriginal peoples of Canada to participate in the discussions on that item.”

4. The said Act is further amended by adding thereto, immediately after section 37 thereof, the following Part:

**“Part IV.I  
Constitutional Conferences**

*Constitutional conferences*

37.1 (1) In addition to the conference convened in March 1983, at least two constitutional conferences composed of the Prime Minister of Canada and the first ministers of the provinces shall be convened by the Prime Minister of Canada, the first within three years after April 17, 1982 and the second within five years after that date.

*Participation of aboriginal peoples*

(2) Each conference convened under subsection (1) shall have included in its agenda constitutional

matters that directly affect the aboriginal peoples of Canada, and the Prime Minister of Canada shall invite representatives of those peoples to participate in the discussions on those matters.

*Participation of territories*

(3) The Prime Minister of Canada shall invite elected representatives of the governments of the Yukon Territory and the Northwest Territories to participate in the discussions on any item on the agenda of a conference convened under subsection (1) that, in the opinion of the Prime Minister, directly affects the Yukon Territory and the Northwest Territories.

*Subsection 35(1) not affected*

(4) Nothing in this section shall be construed so as to derogate from subsection 35(1).”

5. The said Act is further amended by adding thereto, immediately after section 54 thereof, the following section:

*Repeal of Part IV.I and this section*

“54.1 Part IV.I and this section are repealed on April 18, 1987.”

6. The said Act is further amended by adding thereto the following section:

*References*

“61. A reference to the “*Constitution Acts, 1867 to 1982*” shall be deemed to include a reference to the “*Constitution Amendment Proclamation, 1983*”.

**Citation**

7. This Proclamation may be cited as the “*Constitution Amendment Proclamation, 1983*”.

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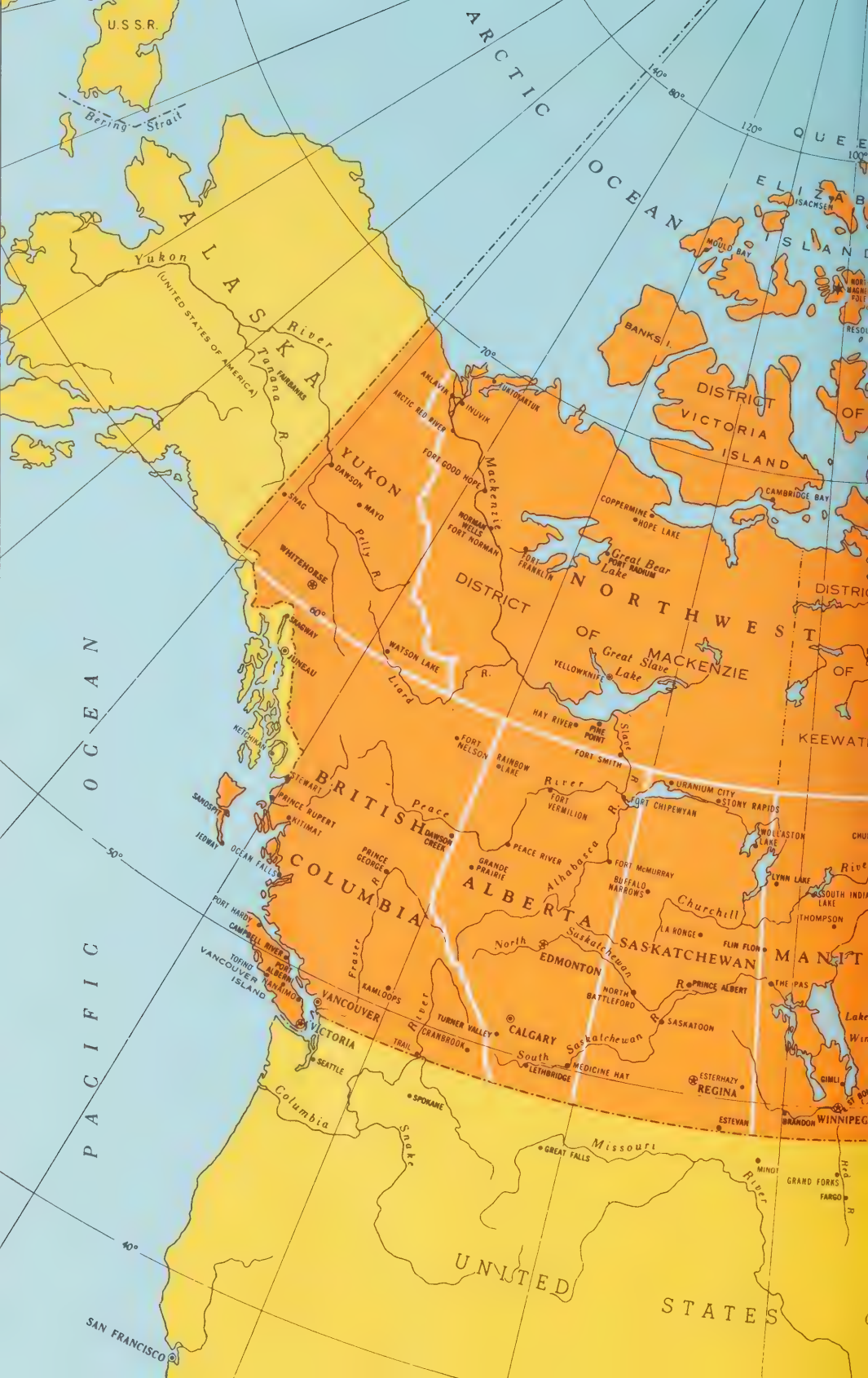
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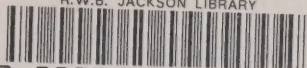








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